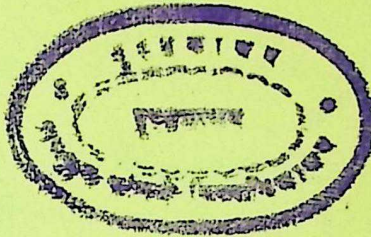


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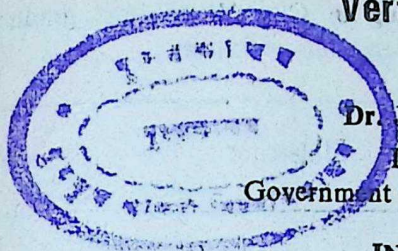
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A Study of Conflict Resolution Among Verts Extro+Intro



Dr. Jai Prakash Nautiyal

Lecturer in Psy.

Government College, Dudhli, Dehradun



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INTRODUCTION

Conflicts refer to situations where two or more incompatible motives are aroused. The satisfaction of one motive leads to denial of the other conflicts come in all shapes and sizes. A child may want to pet a strange animal but is afraid of it, a young man may want to be independent but feels uneasy about breaking away from home. A young woman may want to excel in sports and in studies but discovers she can not do both at once.

Conflicts can be minor or major. Many of the lesser ones such as choosing food in a restaurant are handled with relative ease. But major conflicts can be the cause of severe psychological stress.

If social life has its conflict, it also has its adjustment. Individuals quarrel then make up, workers strike then negotiate for a settlement wars are followed by peace, conflicts in human society is not an incidental or abnormal phase of man's behaviour. It is intermittent in human society.

Objective : To find out the influences of personality traits to the relative ease of the resolving different kinds of conflicts. The personality variables to be correlated are manifest anxiety level, Emotional stability and Introversion-Extroversion, age and sex.

Hypothesis : Hi-Extroverts resolve conflicts significantly more easily than introverts.

Ho-The observed difference in time taken to resolve conflicts by Extrovert and introverts is due to chance and not significant.

Tools Used : (1) A semi projective test (self made) eight personality characteristics were selected for creating conflict situations.

(2) The Indian adaptation of Neyman-Kohlstadt Diagnostic Test by Dr. Jai Prakash used.

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Statistical Techniques : For statistical analysis of the data obtained Non Parametric test viz "The Mann Whitney U test" were used.

$$z = \frac{\frac{U - n_1 n_2}{2}}{\sqrt{\frac{n_1 n_2}{N(N-1)} \frac{N^3 - N}{12} - T}}$$

Sample : A sample of 180 students studying in Class VI to post graduate have been selected randomly in District Hardwar and Dehradun as follows :

	Preadolescent		Adolescent		Adult	
Age group	10 to 12		16 to 18		21 to 23	
Class	VI to VIII		B.A./B.Sc./B.Com.		Post Graduate	
No. of subjects	M	F	M	F	M	F
	40	20	40	20	40	20
Total	60		60		60	

Procedure : In selecting personality characteristics the procedure adopted was as follows :

A large number of pre-adolescent, adolescent and adult students belonging the age groups of 10 years to 12 years and reading in Class VI to VIII, to age group of 16 years to 18 years and reading in first degree classes and of 21 years to 23 years reading in post graduate classes were given a semi projective test.

The subjects were asked to express their opinion on these personality characteristics which they thought were considered important by present day students. Out of the various personality attributes expressed in this test the first eight most frequently mentioned characteristics common to all age levels were selected. Each attribute was alternated with each

one of the other and each pair printed on the separate cards - These were thus $\frac{8}{2} \times \frac{1}{(8-2)} = 1$

or 28 cards for each type of conflict. The cards were of the same colour and rectangular size. The words were also of the same colour, prints and size. Each card was presented to the subject one by one. He was instructed that he must choose one of the alternatives. Thus Forced choice technique was used.

Amount of the time taken to resolve the conflict was taken as an index of the case for diffinately of resolve conflicts.

DATA AND THEIR STATISTICAL TREATMENT
SHOWING RANKING OF THE SCORES OF Q₁ AND Q₃ GPs
Introverts and Extroverts

S. No.	Scores	Rank	S. No.	Scores	Rank
6	5.4	57.0	3	4.0	31.5
17	4.1	37.5	5	5.2	5.2
18	4.7	46.0	12	4.3	39.5
31	2.2	7.0	13	4.4	42.0
44	5.6	62.0	14	4.7	45.0
52	5.4	57.0	25	4.6	43.5
53	5.3	54.0	26	4.9	59.0
57	5.9	68.0	28	3.3	21.0
70	5.8	67.0	36	3.2	30.0
71	5.4	57.0	40	2.9	15.5
74	4.6	43.5	43	7.0	74.0
75	5.6	62.0	48	6.0	59.5
83	5.7	62.0	49	5.6	62.0
87	8.1	79.0	54	7.2	75.0
92	3.1	18.0	55	7.4	76.5
93	2.1	4.0	60	4.3	39.5
105	6.8	73.0	61	4.9	59.0
106	7.6	78.0	68	5.7	65.0
111	4.7	46.0	72	4.3	39.5
112	6.0	69.5	74	3.7	26.5
113	5.4	57.0	77	5.2	52.0
117	4.9	59.0	78	6.3	72.0
121	2.9	15.5	88	4.2	36.0
123	4.1	33.5	89	2.3	8.5
127	4.2	36.0	94	3.9	29.0
128	5.2	52.0	95	3.1	18.0

Contd....

S. No.	Scores	Rank	S.No.	Scores	Rank
134	5.4	57.0	99	3.4	22.5
135	4.2	36.0	108	5.7	6.5
142	4.3	39.5	115	4.7	76.5
143	3.5	24.5	118	6.1	71.0
148	3.9	29.0	129	4.0	31.5
149	2.1	4.0	137	5.5	60.0
150	2.3	8.4	144	3.5	24.5
152	2.1	(4.0)	145	3.9	29.0
153	2.1		154	2.6	11.5
157	2.6	11.5	164	2.6	11.5
160	2.6	11.5	166	2.1	4.0
161	3.7	6.5			
163	1.8	1.0			
173	3.4	22.5			
179	3.1	18.5			
180	2.8	14.0			
$R_2 = 1611.0$			$R_1 = 1579.0$		

$$N = 37 + 12 = 79$$

$$\text{Mean time} = \frac{119.8}{42} = 4.76$$

$$\text{Mean time} = \frac{169.4}{37} = 4.58$$

DISCUSSION AND CONCLUSIONS

This study was concerned with the following question :

Whether the same with which a person resolves conflicts is dependent upon his personality traits. The personality trait studied is Introversion-Extroversion.

The mean conflict resolution time (irrespective of type conflict) of subjects who scored higher in Neyman-Kohlstect Diagnostic Test introversion-Extroversion scale that is who were comparatively more extroverted was 4.58 seconds. The mean conflict reasolution time of these subjects who scored comparatively less in this test, that is, who were comparatively less extroverted was 4.76 seconds. Though these observations suggest that

less extroverted (that is more introverted) subjects take more time to resolve conflicts but this difference ($4.76 - 4.58 = 18$ seconds) was not found significant as hypothesized. This perhaps is due to the fact that except a few cases all the subjects tested were average neither distinctly extroverted nor distinctly introverted. In other words, most of the subjects falling in the average range of $+10$ to -10 , extroverted introversion tendencies were not highlighted. Since the sample of this study was selected from school and college going population, this is not surprising.

Suggestions : It is suggested that this hypothesis needs further testing by taking samples of High Extroversion and High Introversion.

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A Study of Relationship Between Achievement of Prospective Teachers at Their Pre-B. Ed. and Degree Examination

U. S. Chaudhari* and Shobha Vaidya
Institute of Education,
D. A. University of Indore

INTRODUCTION

The present study is an attempt to find out the relationship between the achievement of prospective teachers at their pre-B. Ed. and degree examination.

The prospective teachers usually acquire a body of knowledge, memories, facts and exert their valuable energies in finding out answers to some important question which often appear in university examination. But the strategies as well as tactics to teaching adopted by education department aim at meeting the requirements of developing a specific kind of knowledge. We can say theoretical knowledge of educational practices. Their previous knowledge or learned content has almost negligible place in the B. Ed. curriculum behaviour.

According to second & third survey of research in education (1987) no study was conducted on the relationship of Pre-B. Ed. and degree achievement.

Though, various studies have been conducted on achievement as a variable but they were not directly related to Pre-B. Ed. achievement. Gupta (1977) examined the academic achievement of student-teachers in terms of B. Ed. examination marks, the innovativeness of the programmes of colleges of education. Gupta (1977) compared the academic-achievement of successful and less successful teachers Whereas Hooda (1976) studied the relationship of attainments in theory subject in B. Ed. course with attitude as

* The authors are especially thankful to Dr. P. C. Katiyar, Ex, Professor Dept. of Education D.A.V.V., for providing data regarding Pre-B. Ed. examination.

Dr. U. S. Chaudhari is Professor and Head School of, Advanced Liberal Studies, Dr. Shobha Vaidya is in Institute of Education, Centre of Excellence, D. A. V. V., Indore.

a teacher and teaching efficiency. Pattel (1975) studied the relationship between the perceptual factors and success in teacher-education course. Singh (1974) investigated the nature of relationship between teacher-values, attitudes and job satisfaction. Shrivastava (1981) in his study found positive relationship between marks of theory and practicals of B. Ed. students.

The studies cited above indicate that perhaps there is no study conducted on relationship of Pre—B. Ed. achievement and degree achievement.

METHOD

130 prospective teachers who passed their Pre—B. Ed. test in 1986 and admitted in the Department of Education, University of Indore, form the sample of the study.

In the Pre—B. Ed. test the candidates are required to appear in two papers. The first paper tests, general mental ability, teaching aptitude, science and general knowledge. In second paper a candidate has to opt any two from the eleven options (subject areas).

On the basis of degree and Pre-B.Ed examination mark-sheets, the achievement scores of the prospective teachers were gathered and tabulated.

The obtained scores on the achievement test were processed by estimating mean, S.D. and correlation of co-efficient respectively.

TABLE-1. Correlations between Pre-B.Ed. achievement and degree examination (N=130)

Variable	Mean	SD	SEm	'r'
Degree Examination	48.01	6.2		
Pre-B.Ed. Examination	57.01	8.7		0.017*

*Not significant.

Table-1 shows that the value of $r = 0.017$ is not significant. The result indicates that there is no relationship between the degree and B. Ed. examination marks.

Thus, it can be concluded that there is no correspondence between the achievement at the degree and the Pre-B.Ed. examination. This result possibly points to the differential demands of the academic and professional streams. This study gives an evidence of improvement in the mean achievement scores of the prospective teachers at their Pre-B.Ed.

examination. Further studies are warranted to arrive at a precise and stable relationship between the achievement of the prospective teachers at their degree and Pre-B.Ed. examination.

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TIWARI KOTHI, BELANGANJ, AGRA-282004 (India)
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Analysis of Burnout in Relation to Stress in Teaching Profession

Dr. K. N. Misra

Department of Education

Regional College of Education, Bhubaneswar

The author of the present study has investigated the effect of biographical variables of teachers and teacher's stress perception in teaching on their burnout feeling. The sample of the present study consists of 200 primary school teachers of Bhubaneswar. They were classified into two groups i.e. high and low stress perceived teachers and they again divided into three groups. These groups were formed on the basis of teacher's age, qualification and teaching experience. The teacher's stress check list and Maslach Burnout Inventory were used to assess the teacher's stress and burnout feeling respectively. The findings of the study indicate that teachers with low stress feeling experienced more burnout-emotional exhaustion and personal accomplishment in comparison to high stress teachers. Teacher's experience in teaching profession is responsible for burnout-emotional exhaustion feeling. Teacher's with less experience felt more emotional exhaustion, which is reverse in case of high experience teachers.

INTRODUCTION

Burnout is a psychobiological concept. It depends upon how an individual fulfils or fails to fulfil his needs, especially those needs which are dependent on interpersonal relationships for their fulfilment, deserves co-equal status with the concept of stress management. As Maslach notes, and researchers and theorists usually define burnout in terms of psychological experience of individual and on the other hand administrators are concerned with possible behavioural consequences of burnout for their agencies. Early works of Maslach and his associates on burnout phenomenon indicate that stress is a

prerequisite condition for burnout but it is not a only criterion for burnout, volume, magnitude and intensity of stress are also account for burnout feeling. Stress within the elasticity range is positively related to job satisfaction and adjustment but high level of stress is found to be responsible for poor performance (John and Michael, 1980), physical (Lipowski, 1977), and psychophysiological (Friedman and Rosenman, 1974) disorders, person with inadequate stress management and need gratifying skills must works in a stressful and need fristrating work environment. When a person works for a long time in stressful working condition with inadequate stress management skills develops burnout feeling.

Stress is an important and dominating factor for burnout. Stress is a combination of factors within the individual, the organization and wider society which lead to lowering the feeling of personal self worth, achievement. effectiveness and coping within one's personal role (Trendall, 1987). Stress and burnout in teaching have become a popular topic in professional literature and also a significant area of investigation. In this study in attempt has been made to analyse how high and low stress perceived teachers feel burn-out ? Is there any variation in the feeling of burnout due to their biographical variables ?

METHOD

Sample : 200 primary school teachers constitute the sample for the study. Teachers age, qualification and teaching experiences are considered as biographical variables. Three categories were formed for each biographical variables. A Schematic design of sample and percentage of teachers under each category is given in Table-1.

Table-1 : Sample Charecteristics (Teacher's Stress) :

Biographical variables	Low Stress Teacher			High Stress Teacher		
	$M=2.14, SD=0.295$			$M=2.90, SD=0.293$		
	$N=96 (48.0)$			$N=104 (52.0)$		
	GROUP			GROUP		
	I	II	III	I	II	III
Teacher's	$N=36$	$N=42$	$N=18$	$N=48$	$N=34$	$N=22$
Age	(37.5)	(43.75)	(18.75)	(46.15)	(32.69)	(21.15)
Educational	$N=55$	$N=30$	$N=11$	$N=49$	$N=40$	$N=15$
Qualification	(57.29)	(31.25)	(11.46)	(47.12)	(38.46)	(14.42)
Teaching	$N=52$	$N=27$	$N=17$	$N=59$	$N=26$	$N=19$
Experience	(54.17)	(28.13)	(17.17)	(56.73)	(25.0)	(18.27)

Percentage of Teachers in each cell is given in Parenthesis.

(A) For Teacher's age group I, II and III stand for teachers come within age range of 21 to 30, 31 to 40 and 41 to 50 years respectively.

(B) In case of teacher's qualification group I, II and III stand for undergraduate, graduate and postgraduate teachers respectively.

(C) With regard to teacher's teaching experience group I, II and III stand for 1 to 5, 6 to 10 and 11 to 15 years of teaching experience,

Teachers were classified into two groups *i.e.* high and low stress perceiving teacher on the basis of mean score ($M=2.53$) on teacher's stress check list. 104 primary school teachers were indentified as high and 96 as low stress perceived teachers. These two groups were significantly differed in respect of the feeling of stress. The Means and SDs for high and low groups were 2.90; 0.293 and 2.14; 0.295. The Mean difference of 0.76 was significant ($t=18.095$, $df=98$, $p<.01$).

These two groups were again divided into three sub groups, on the basis of teacher's age, qualification, and experience. 48 and 52 percent teachers come under Low and high stress perceiving teachers. The percentage for different age group of teachers, perceiving low stress were 37.5, 43.75 and 18.75 for group I, II and III respectively, whereas, in case of high stress perceiving teachers the percentage for group I, II and III were 46.15, 32.69 and 21.15 respectively. It is clear from the percentage mentioned in Table-1 for educational qualification and teaching experience that when teacher's qualification and year of teaching experience are increasing than their percentage of stress feeling is decreasing, which is true in both the cases *i.e.* high and low stress teachers. One explanation seems to be in order when teachers are having higher qualification and experience in the performance of their duties, they come across many difficulties and accordingly develop personality patterns which may responsible for it.

Test Materials : Following tests have been used for the purpose :

1. **Teacher's Stress List :** Teacher's stress check list was developed by the author. It consists of 74 stressfull situations. Teachers were asked to give 1 to 4 mark each of the situation according to their feeling. A high number for a stressful situation indicates greater amount of stress feeling. A total score on the check list varies from 74 to 296.

2. **Maslach Burnout Inventory :** The Maslach Burnout Inventory was developed and standardized by Maslach and Jackson (1981). It consists 22 items and measure three independent dimensions of burnout *i.e.*, emotional exhaustion, personal accomplishment and depersonalization. It is a highly reliable, valid and well known measure of burnout.

RESULTS AND DISCUSSION

The scores obtained on Maslach Burnout Inventory by high and low stress perceived teachers with their age, qualification and teaching variations were subjected to

TABLE-2 : Mean and SDs of High and Low Stress Perceived Teachers on Emotional Exhaustion (EE), Personal Accomplishment (PA), and Depersonalization (DP), Scores with reference to Teacher's Age, Educational Qualification, and Teaching Experience.

Biographical Variables	GROUP I			GROUP II			GROUP III		
	EE	PA	DP	EE	PA	DP	EE	PA	DP
1. Teacher's Age									
Low Stress Teacher M	13.89	27.28	5.78	14.71	26.93	5.64	14.5	24.61	8.5
σ	8.31	10.43	5.01	9.29	9.40	5.33	10.72	8.43	7.09
High Stress Teacher M	12.92	30.92	5.69	11.18	29.35	4.29	10.27	29.77	5.09
σ	9.89	7.59	6.05	8.37	9.85	4.42	8.45	13.01	4.79
2. Educational Qualification									
Low Stress Teacher M	13.46	27.15	6.31	19.4	27.03	5.37	15.18	28.27	8.18
σ	9.66	9.53	5.52	20.52	6.71	5.49	10.43	10.46	6.51
High Stress Teacher M	10.37	29.61	5.02	11.3	29.9	5.25	16.27	34.27	4.8
σ	8.48	10.63	5.77	8.22	8.41	5.07	11.11	6.73	4.02
3. Teaching Experience									
Low Stress Teacher M	13.89	27.28	5.78	14.71	26.93	5.64	14.5	24.61	8.5
σ	8.31	10.43	5.01	9.29	9.40	5.33	10.72	8.43	7.09
High Stress Teacher M	12.92	30.92	5.69	11.18	29.35	4.29	10.27	29.77	5.09
σ	9.89	7.59	6.05	8.39	9.85	4.42	8.45	13.01	4.79

statistical analysis. Means and SDs were worked out for each groups in response to each sub scale. The Mean and SD values are presented in Table-2.

It is clear from observation of the values presented in Table-2 that high and low stress perceived teacher vary in emotional exhaustion, personal accomplishment and depersonalization scores. The variance in scores are observable due to teachers biographical variable and intensity of stress feeling. But on the basis of variation in scores one can not made any generalization. Therefore, these scores were subject 2 to (stress level, high and low stress perceived teachers) $\times$ 3 (Three categories of teachers) analysis of variance to made any concrete generalization. The summary of two (High and Low Stress) $\times$ 3 (age group) analysis of variance foremotion exhaustion, personal accomplishment and depersonalization are presented in Table-3.

Table-3 : Summary of 2 (High and Low Stress) $\times$ 3 (Age Group) Analysis of variance of Bournout-Emotional Exhaustion, Personal Accomplishment, and Depersonalization Scores.

Sources of variance	SS	df	MS	F
<i>Emotional Exhaustion</i>				
A. Teacher's Stress	331.29	1	331.29	12.08**
B. Teacher's Age	37.75	2	18.88	0.69
A $\times$ B	100.24	2	50.12	1.83
Error _w	5319.60	194	27.42	1.83
<i>Personal Accomplishment</i>				
A. Teacher's Stress	625.03	1	625.04	6.49*
B.	123.58	1	61.03	0.49
A $\times$ B	21.56	2	10.78	0.11
Error _w	18689.58	194	96.34	
<i>Depersonalization</i>				
A. Teacher's Stress	63.00	1	63.00	2.08
B.	66.84	2	33.42	1.10
A $\times$ B	86.40	2	43.20	1.42
Error _w	5887.56	194		

* $p < .05$

** $p < .01$

The F values mentioned in Table-3 reveals that the main effects of Teachers stress are significant for emotional exhaustion and personal accomplishment ($F=12.082$, $df=1$; 194 , $p < .01$ and $F=6.488$, $df=1$, 194 , $p < .05$). However, the F values for main effects of

teacher's age and interaction between teacher's stress and teacher's age are not significant for emotional exhaustion and personal accomplishment scores. In respect of depersonalization neither main nor interaction effects are significant.

It is evident from Table-4 that the main effect of teacher's stress is significant for emotional exhaustion and personal accomplishment. The F ratios are 6.536 ($df=1, 194$; $p<.05$) and 5.809 ($df=1, 194$; $p<.05$) for emotional exhaustion and personal accomplishment, respectively. However, the main effect of teacher's qualification and interaction effects between teacher's qualification and teacher's stress for emotional exhaustion, personal accomplishment and depersonalization are not significant. In case of depersonalization the main effect of teacher's stress is also not significant.

TABLE-4 Summary of 2 (High and Low Stress) $\times$ 3 (Teacher's Qualification) Analysis of variance of Burnout-Emotional Exhaustion, Personal Accomplishment, and Depersonalization Scores :

Sources of Variance	SS	df	MS	F
Emotional Exhaustion				
A. Teacher's Stress	786.70	1	786.70	6.54*
B. Teacher's Qualification	485.37	2	242.69	2.02
A $\times$ B	592.49	2	296.25	2.46
Error _w	23351.19	194	120.37	
Personal Accomplishment				
A. Teacher's Stress	496.79	1	496.79	5.81*
B. Teacher's Qualification	284.41	2	124.20	1.43
A $\times$ B	29.77	2	14.88	0.17
Error _w	16592.15	194	85.53	
Depersonalization				
A. Teacher's Stress	66.23	1	66.28	2.16
B. Teacher's Qualification	17.55	2	8.77	0.29
A $\times$ B	49.57	2	24.79	0.81
Error _w	5949.23	194	30.67	

* $p<.05$.

The values presented in Table-5 reveal that the main effects of teacher's stress and teaching experience is significant for emotional exhaustion. The F values for teacher's stress and teaching experience are 5.036 and 3.186 which significant at .05 level. But interaction effects of teachers stress and teaching experience for emotional exhaustion is not significant. However, neither main effects nor interaction effects are significant for personal accomplishment and depersonalization scores.

Table-5 : Summary of 2 (High and Low Stress) $\times$ 3 (Teaching Experience) Analysis of Variance of Bournout-Emotional Exhaustion, Personal Accomplishment, and Depersonalization Scores.

Source of Variance

Emotional Exhaustion

A. Teacher's Stress	415.15	1	415.15	5.94*
B. Teaching Experience	525.29	2	262.64	3.19*
A $\times$ B	190.39	2	95.20	1.16
Error _w	15994.22	194	82.44	

Personal Accomplishment

A. Teacher's Stress	64.81	1	64.81	0.61
B. Teaching Experience	17.71	2	8.86	0.61
A $\times$ B	424.63	2	212.33	1.98
Error _w	20789.17	194	107.16	

Depersonalization

A. Teacher's Stress	66.28	1	66.28	2.21
B. Teaching Experience	102.93	2	51.47	1.71
A $\times$ B	85.71	2	42.86	1.43
Error _w	5827.70	194	30.04	

* $p < .05$.

Teachers having low stress feeling in their job, feel more emotionally over extended and exhausted and feel more competent in teaching in comparison to teachers with high stress feeling. The findings of the study do not support earlier research findings which are conducted by Maslach and Jackson (1981). Teacher's feeling of emotional exhaustion is not fully depend upon their stress. How did they take the job? How frequently did they perceived stress in the job? What is volume and magnitude of stress? and

How they cope with stressful situation ? are also account for emotional exhaustion. One explanation seems to be in order that teachers with low stress in teaching feel satisfaction in performing their duties, they try to reach at excellent out-come for which they take extra burden to achieve the goal. They try to assess the understanding of student and make clear the doubts of the student. Due to these reason one can feel exhausted though they are having low stress feeling in the job. Teachers with high stress feeling in teaching are not interested to go deeper into subject matter and never bother for out come. Teacher's experience in the job is also responsible for their feeling of emotional exhaustion ($F=3.186$, $df=2,194$ and $p=.05$). Students never meet with teachers on a common issue, and teachers always face new problems and try to solve and satisfy the students. In the process of resolving the problem of students, teachers develop specific skills and reach at the stage to solve the students problems without feeling stress.

In conclusion, it can be stated that teachers with low stress feel more exhausted and comptent in their job. Teachers feeling of emotional exhaustion is deteriorating by their teaching experience. Teachers with more experience in teaching profession experienced less emotional exhaustion, whereas new teachers or who are not experienced into their job feel more emotional exhaustion.

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Social Acceptance as a Factor Related to Scholastic Achievement of Adolescents

N. P. Singh and Meena Sharma

P. G. Department of Education

Rohilkhand University, Bareilly (U. P.)

A pupil is probably most important creature in learning teaching premises. Various endeavours—social psychological, educational etc. are made by keeping his central position in mind. Proper development of an adolescent's personality mostly depends on his proper mental development and social adjustment. Social approval, acceptance and repulsion play a crucial role in determining pupil's behaviour. It also effects learning performance in class-room. Keeping this in view the present study was carried out on 200 male and female students of aided institutions of Bareilly district (U. P.). The study seeks to find the relationship of social acceptance with scholastic achievement and mental ability. For the analysis of data following statistical techniques—Mean, SD, CR and coefficients of correlation were employed. Social acceptance was studied through socio-metric technique. Scholastic achievement and mental ability were found to be positively and significantly related to pupil's social acceptance in the group.

INTRODUCTION

A pupil is probably most important creature in learning-teaching premises. Various endeavours—social, psychological, educational etc. are made by keeping his central position in mind. Proper development of an adolescents personality mostly depends on his proper mental development and social adjustment. According to Allport—“Personality is the dynamic organisation within the individual of those psycho-physical systems that determine his unique adjustment to his environment”. It include physical, mental and social aspects.

Social acceptance has its psychological aspect also. Every child has certain needs—like need for belongingness, need for 'self assertion', need for 'social recognition', need

for 'security' etc. The fulfilment of these needs is essential for the free development of his personality. If a child is accepted by his peers, he will have the feeling of security. After being satisfied in his needs, pleasure is felt by him. Findings of social psychologists provide sufficient proof that the more cohesive and compact the group, the more will be its efficiency. Lavier (1949) says, "one also finds mal-adjustment, school failure and unhappiness closely allied to social difficulties. A major factor causing children to drop out of school is that many are unable to achieve a feeling of belongingness in the group". Hence, social acceptance is very essential for the healthy development of the child's personality.

Intelligence and social acceptance effect the academic achievement of an adolescent. Most of the learning that occurs in the school takes place in groups. If the children are well adjusted in their groups, they will devote their energy for learning & learning will become a pleasant job for them. They will try their best to learn more and more which will lead them towards better academic achievement. The studies of Feinberg (1953), Brown (1954), Badami and Tripathi (1973) come in direction of establishing that socially accepted groups are more likely to score higher in scholastic achievement.

Belfield (1964), Rao and Banerjee (1973), Srivastava (1954), Januar (1961) report correlation among social acceptance intelligence and academic achievement. As very few studies have been conducted in this area on adolescents, the investigators have endeavoured to study the effect of social acceptance on the academic achievement of adolescent boys and girls in relation to general mental ability. The study was carried out by keeping the following objectives in mind.

Objectives : 1. Is there any correlation between the scores of social acceptance and scholastic achievement ?

2. Is there any relationship between intelligence and social acceptance ?

3. To find out relationship between variables under the study.

Hypothesis : 1. There will be significant correlation between scores of social acceptance and scholastic achievement of adolescents.

2. Intelligence will be correlated with social acceptance of pupils.

3. There will be significant difference between the scores of boys and girls in all the three variables—social acceptance, intelligence and scholastic achievement.

Tools and Technique : Researchers employed socio-metric technique for the study of social acceptance. As regards general mental ability test the same of R. K. Tandon was used. For academic achievement, their previous class marks were taken into view. There were general conversion of academic scores into percentage and intelligence scores into I. Q. In socio-metric technique there were three choices to correspond marks that was allotted as three (First choice), two (Second choice), one (Third choice) respectively.

Students were asked to give choice for the students whom they liked most, more and much. The total score obtained by a pupil in the group through the matrix table is the score of social acceptance for him.

The study covers only 200 male and female science students of aided institutions by using random sampling technique. For the testing of hypothesis and reaching any conclusion, researchers employed following statistical techniques Mean, S. D., C. R. and coefficients of correlation.

All the above hypothesis were converted into null form while interpretation.

RESULTS

1. With a view to study objective as well as hypothesis No. 1, it is essential to refer to Table Nos. 1 and 2. The data presented in Table 1 and 2 reveal a significant positive correlation between social acceptance and academic achievement for male and female adolescents which goes significant at .01 level. The presence of significant positive correlation between social acceptance and academic achievement shows that the null hypothesis is rejected. It means that adequate social approval satisfies adolescents psychological needs like needs of social recognition and belongingness, and so they can devote themselves to their studies whole heartedly, which results into bright academic achievement. The findings of the present investigation are in conformity with that of Feinberg (1953), Brown (1954), Badami and Tripathi (1973).

2. The hypothesis No. 2. in null form is not accepted. The study reveals positive 'r' of .353 for female students and .311 for male students which are significant at .01 level. With regard to positive association between social acceptance and intelligence, it may be inferred that adolescents of superior mental ability happen to have better adjustment and closer relationship with their classmates and thereby succeed in gaining high social approval from them. The findings of Belfield (1964), Rao and Banerjee (1973) are also in the same vein.

Table-1 : Correlation table for girls.

Name of variables	Social acceptance	Academic achievement	Intelligence
Social acceptance	—	.283	.353
Academic achievement	.283	—	.338
Intelligence	.353	.338	—

Table-2 : Correlation table for boys.

Name of variables	Social acceptance	Academic achievement	Intelligence
Social acceptance	—	.305	.311
Academic achievement	.305	—	.205
Intelligence	.311	.205	—

3. For testing of hypothesis No. 3, it was converted into null form. Non-significant value of critical ratio for the two sexes is sufficient to establish that sex has nothing to do with social acceptance of adolescents (C. R. 0.92, N.S.). In scholastic achievement girls were found to have superior performance to that of boys ($t=1.98$, $P=0.05$). At the last mental ability of the two sexes was also studied. A non-significant value ($t=0.32$) of critical ratio shows that sex has nothing to do with mental exposure of pupils.

CONCLUSION

As per the results of the study, it is obvious that social acceptance, intelligence and academic achievement are significantly interrelated. Keeping this fact in view, the school authorities and parents of the adolescents are advised to help in achieving proper adjustment in family and school by providing them all possible facilities of healthy inter-personal relationship. The school authorities should, by their own personal behaviour, inculcate healthy inter-personal relationship among the students free from vices of caste, religion, sex or socio-economic status. What is more important is to find out genuine causes of poor social acceptance and academic achievement and to adopt suitable measures to remove them.

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TIWARI KOTHI, BELANGANJ, AGRA-282004 (India)

(Phone : 362964)



Factors Affecting Educational Dropout and Stagnation in the Primary Schools of Arunachal

Dr Bhujendra Nath Panda and Dr. Nikunja Bihari Biswas and

Miss Dharitri Rani Kanungo

Department of Education, Arunachal University, Itanagar—791112

INTRODUCTION

Since Independence Government of India is trying to provide adequate schooling facilities for all children through different plan and policies. Even it has been realised that children are our future and our most precious resource. They are the man's greatest acquisition and provides hope and aspirations to the society. After all, it is the children whose individual development in every respect will shape the future of our globe. So, a wise investment in children's harmonious development and education will lay the foundation stone for future growth and development and bring returns on national investment. Therefore the cost of a student in the primary stage of education which was around Rs. 30/- during the year 1960 rose to Rs. 450/- in the year 1987 because we realised that primary education is the base in the entire educational system. It not only helps in the development of personality of the child but also determines their future. But the appalling dimension of educational dropout and stagnation at the primary stage is indeed a matter of grave concern. It has been reported by the researches of Jacob (1986) that out of 100 pupils who enter class I, about 40 reach class V and only about 25 reach class VII, which also coinciding with the study of NIEPA (1980).

Researchers have from time to time conducted studies to discuss the causes of wastage and stagnation in our country. Among them the studies of Chicernane (1962), Choudhury (1965), Sharma and Sapra (1966), Rawat and Gupta (1970), Chandrasekharan (1978), Sushila Basoo (1979), Leelavathy (1984), Nagamani and Rajeswari (1988), Pathy (1989), and Abraham and Sudharma (1990), etc. were note worthy.

But the situation in Arunachal is quite different from other states of India through rapid strides in all spheres is going on to come on a par with other parts of the country. It is also reflected that the majority of the people have become conscious about the need of education, as a result, literacy in Arunachal has increased upto 26.79 percent in 1981. Even there are about 1276 primary schools with 1597 teachers and 43362 students in Arunachal Pradesh in the year 1988. But this may be inferred from the statistics that the

percentage of dropouts is credibly high in primary education though there is a tremendous development of education facilities in the state. So, the above appalling dimension of educational dropout and stagnation at the elementary stage (Which comprises primary education from grade I to V) in Arunachal Pradesh is a matter of grave concern when we consider that the directive principle of state policy under Article 45 of the constitution envisages free, compulsory and Universal education children upto the age of 14 years. This problem will become acute unless suitable steps were taken to bring down the number of its causes. Therefore, a thorough inquiry is necessary to find out the major causes of dropout and stagnation in the primary schools of the state of Arunachal. Thus, the present investigation is an attempt in that direction because there is no such study in the above area/line which would give a more valid and reliable estimate of the incidence of dropout and stagnation in the primary schools of Arunachal. Hence the present study is at hand with the following objectives.

Objective of the study : The specific objectives of the present study are :—

1. to identify the causes of dropouts in the schools.
2. to ascertain the causes of stagnation at the primary stages of education.
3. to suggest some means and measures to solve the above problem of educational dropouts and stagnation in the primary schools of Arunachal Pradesh.

METHODOLOGY

Sample : The sample for the present study was drawn from Lower Subansiri district of Arunachal Pradesh. In the present study the sample consisted of 80 dropouts, 80 stagnated, and 40 teachers selected randomly from different primary schools. Even, data from 80 parents (40 from each group) were collected randomly to ascertain their views about wastage and stagnation. In order to collect information a brief questionnaire which was prepared by the investigators for students, teachers & parents were circulated separately and information were pooled together. Lastly, the raw data were analysed by the help of simple percentage.

RESULTS AND DISCUSSION

Table-I : Factors Responsible for Educational Dropout & Stagnation (Students Opinion) in Percentage.

Sl. No.	Factor	Educational Dropout.	Stagnation	Total Percentage
1.	Personal	45.61	57.5	51.56
(a)	Lack of Interest	53.75	58.75	56.25
(b)	Failure in Exam.	57.50	—	57.50
(c)	Subject was too difficult	41.25	66.25	53.75

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	(d)	Physical illness	30.00	47.50	38.75
2.		Social	16.25	13.75	15.00
3.		Economic	36.00	75.25	55.63
4.		Educational	27.50	43.70	35.60
	(a)	School environment	21.25	24.25	22.75
	(b)	Teaching was Under standable	26.25	60.75	44.52
	(c)	Lack of Guidance	47.50	53.75	50.63
	(d)	Frequent changes of Syllabus	15.00	—	35.00
	(e)	Partiality by the Teacher.	—	37.00	37.00
5.		Physical	22.90	22.50	22.50
	(a)	Communication difficulties	22.50	30.00	26.25
	(b)	Distance of the School	32.50	23.50	27.80
	(c)	Lack of Curricularactivities.	13.75	14.25	14.00
6.		Family	37.84	52.38	45.11
	(a)	Illiteracy of Parents	26.37	58.50	42.44
	(b)	Financial difficulties	56.25	64.25	60.25
	(c)	Lack of parental Guidance	47.50	36.75	42.13
	(d)	More number of family Members	21.25	50.00	36.63

When respondents were asked to tell the possible factor and reasons responsible for their stagnation and dropout it was found that the respondents gave more than one reason. Though the investigator collected various factors from the respondents yet it is not possible to give all the reasons one by one. So, it has been divided into six major heads along with their important sub-headings. From table-I it was estimated that students were withdrawn from the school or dropped out due to personal factor (45.61%), followed by family (37.84%), economic (36.0%), educational (27.5%), physical (22.9%) and social (16.25%).

Similarly, stagnated students were given more emphasis on economic factor (75.25%) followed by personal (57.51%), family (52.38%), educational (43.70%), physical (22.5%) and social (13.75%). As a whole, it was found out that the main reasons for dropout and stagnation in primary schools of Arunachal Pradesh are economic (55.63%) Per-

sonal (51.56%), Family (45.11%), educational (35.6%), physical (22.7%) and social factor (15.0%) etc, in order of priority.

II. Interpretation of parents opinion : When parents of dropout students were asked to indicate the reasons for stopping their kids from going to school it was revealed that illiteracy and ignorance (55%), lack of awareness about education (38.75), burden in the family (35%), no persuasion to child (83.75%), defective in teaching or instruction (40%), low income (46.25%), inadequate curriculum (41.25%) and distance of the school (36.25%) etc, were the main reasons for dropout from educational institutions.

CONCLUSION AND SUGGESTIONS

Many studies have been conducted by the researchers to find out the reasons for dropout and stagnant behaviour of students in the educational institutions. From the result of the present study it can safely be concluded that the dropout & stagnant behaviour is not based on a single factor but it is the congregation of multiple factors i.e. lack of interest, failure in examination, physical illness, economic backwardness of the family, traditionalism, lack of parental guidance and conducive environment at home and institution. So, to overcome the above problems it is worth while to give emphasis on education of parents as they are the prime force behind their children to sent them to school for all round development. Even the teacher should make quick contact with the parents of a child who either stops coming to school or fails to secure standard marks in the examination or stagnated for more than one year in the same class. Instead of opening the number of schools in pen and paper it will be worthwhile to recruit well qualified and devotee teachers with improving the physical surrounding of the existing school. If possible emphasis should be given to raised the standard of living of the family and appropriate propaganda should be made regarding the utility of education throughout the state by means of government and non-govt. machinaries for greater interest of the society in future. Similarly every effort should be made to change the attitude of the parents towards education of their child.

At last we can say that extending adequate help at the right time in the form of financial aid, remedial teaching, activity based process of learning, awareness about their right, sympathetic attitude on the part of teachers, academic motivation, essential facilities in schools, suitable learning materials and the like may go a long way in minimising dropout and stagnation in education in the state of Arunachal Pradesh in the long run.

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APRC : PUBLISHED NEW TEST

EXECUTIVE PERSONALITY INVENTORY (EPI)

B. L. Dubey, P. Dwivedi and S. K. Verma

(Measures Emotional Instability, Depression, Psychoticism, Extroversion
Introversion and Social Desirability)

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Approaches to Environmental Studies

Dr. Khem Chand Kapoor

Deptt. of Education

Arunachal University Itanagar 791 111

The article presents the concept of environmental education and environmental studies. Environmental studies is a compulsory subject at the primary school level. There are some of the criteria for environmental studies which have been put in this article. The emphasis has laid down on the approaches to Environmental Studies with the help of which a primary teacher can teach Enviromental Studies effectively.

INTRODUCTION

Environmental studies is a popular area of study at the primary level now-a-days. Earlier people were having confusion about the concept of environmental education. The UNESCO, prepared a document (1976) on the Trends in Environmental Education. In this document, it has been made clear that the environmental education is related to the process that involves the indentfication and development of values and clarification of concepts, in order to develop problem-solving skills-both mental and manual, which will lead to an under-standing and appreciation of the interdependence of man, his culture and his physical surroundings. Moreover, UNESCO recommended that environmental education programme gives the insight to an individual about the environment and its associated problems. It provides knowledge to help individuals in understanding the total environment. Environment education develops strong feelings for the environment so that individual feels to protect it. In short the environmental education may be referred from three points of view: i.e., education for the environment, education about the environment, and education through the environment. The environment of an individual is a set of living and non-living elements. The living organisms are plants, and animals in the surroundings of an individual. This group of plants and animals makes the biological environment. Similarly, the individual finds some of the non-living elements in his surroundings such as land, water, and air. All these elements make the physical environment. At the primary school stage, the course of study which covers the content of biological and physical environments, is called Environmental Studies-I. Environmental

Studies-II includes the course content of social environment which consists of the family, school, religious places, community, public and private institutions, mode of production, procurement and supply of required commodities. It also constitutes socially acceptable habits and attitudes for effective living and functioning in a society.

The Working Criteria for Environmental Studies :

1. Child centred Approach to education is an important feature of Environmental Studies. The child centred approach to education has assigned the teacher a changed role of a facilitator of the learning process and an organiser of the learning situation to 'stimulate curiosity and independent thinking, develop problem solving skills, promote planning and execution of projects and self-learning involving acquisition of knowledge through observation of phenomena, creative thinking and activities'.

2. Environmental studies cover different types of environment such as natural or physical environment, biological environment, and social environment.

3. Learners learn the content through their immediate environment and direct experiences but it does not restrict the learner's awareness to his limited local world rather it aims to extent the mental horizon from known to unknown, from immediate to remote.

4. The environment is a co-ordinating agent dealing with the whole situation rather than artificially integrated subject approach.

5. Environmental studies aim to make the learner aware of the environmental problems and conservation of it.

6. The main aim of education is to bring the physical, mental, social and emotional developments in the learner. The environment is used as a mean to realize this goal.

Approaches to Environmental Studies : An environmental approach is advocated for the teaching of Environmental Studies at the primary level. The appropriateness of this approach is established by the fact that it is the learner's immediate environment with which he is familiar. The teacher is to proceed from immediate environment, Learner will learn from his environment with the help of his direct experiences and observations. As a matter of fact, the small children do not take any interest in a long lecture delivered by the teacher. Therefore many methodologies are adopted by the teacher to teach this subject. More common methodologies are : class discussion, small group projects, field trip or community resource visit, preparation of models of those objects which they see in the environment, telling the factual and imaginative stories, helping the students to celebrate birth days and national festivals.

Enquiry approach is the another approach which a primary teacher can adopt conveniently for teaching of Environmental Studies. Children are curious by nature. As soon

as children grow, their curiosity increases. They put up several questions to their parents, brothers, sisters, friends, teachers, etc regarding the objects they see and experience in their immediate environment.

They ask questions primarily to explore the environment and to understand it. Children are inquiry-minded always. This inquiry-mindedness helps them to obtain the maximum personality development and makes them productive members of the society. Hence, it is desired that teachers should provide an opportunity to the students for developing the inquiry skills and the teacher is to make the answers of their questions.

Environmental Studies follow the topic approach. Since a local environment offers a very wide range of topics which may form a starting point for study. Some possible topics for a topic approach to Environmental Studies are listed below :

1. Our family 2. Our Houses 3. Sanitation 4. Our School 5. People's work
6. Diversity of living things 7. Non-living things 8. Weather, climate, seasons
- 9 The sky 10. Space 11. Movement 12. Materials around us
13. Services 14. Man and changes on Earth's surface 15. Production of commodity
16. Human Body 17. Location, distance, directions 18. Occupations.

After a topic has been selected for the study it is necessary to analyse it for its major components and sub-components. A flow diagram may be used for the analysis purposes. Now, each and every component will be taken into account and a series of activities will be followed. It is important for the teacher to carry out these activities himself before he asks the students to perform those activities. This will help to discover the competencies which are required in performing those activities. It will give an idea to identify and select only those activities which are most suitable for the students of a particular level. Take for example the following topic has been selected for Class-II.

Topic : Our School

Instructional Objectives : 1. To observe different objects, materials and people in and around the school.

2. To classify the different objects on the basis of living and non-living, colour, shape, size texture, use, etc.

3. To use numbers to count the objects.

4. To measure the length and width of objects in and around the school, to measure the weights of objects.

5. To use space-time relationship.

6. To communicate by using previously known and new vocabulary to describe and impress others correctly about the school.

7. To carry out investigations to find out the types of activities performed by the people in the school.

8. To develop the desirable and good health habits.
9. To develop an appreciation and love for the school, its traditions and good manners.

Suggested Activities : 1. Students (a) observe different objects and materials in the classroom such as doors, windows, blackboard chalks, dusters, tables, chairs, etc. (b) classify them on the basis of colour, shape, size. (c) take proper care in placing at the right places after using them.

2. Students go round the school campus and get familiar with different components of the school and its surroundings with regard to location, number and enquire about their specific functions from the teacher either on the spot or in the classroom.

3. Students observe the school garden and the lawn and notice the wide diversity seen among the living and non-living things such as :

- (a) different plants
- (b) different animals
- (c) different non-living things.

4. Students collect materials from the lawn/surroundings of school and classify them.

5. Students make a map of law and measure its length and width, and show the scale and directions.

6. Students enquire about some problems.

7. Students live together and show some good habits and manners.

8. Students participate in some activities.

9. Students participate in some celebrations.

Here it is marked that the topic has been selected from the immediate environment and the topic 'our school' is possible to teach through some activities. Similarly, any other topic may be selected from the environment and it can be learnt by the students by performing certain activities. So, here it is concluded that the topic approach takes the help of two more approaches such as the activity approach and the practice of learning by doing. It has been experienced that these approaches are very effective for the teaching of Environmental Studies at the primary level.

Skill (competencies) approach is also an important approach which is adopted while teaching the environmental studies. Skills or competencies are the basic abilities which are developed through learning. Those abilities may be intellectual, psychomotor, and affective abilities. In this approach the starting point is the selection of a skill or cluster of skills which the teacher wants to inculcate among the students. After the selection of the skill/skills of the teacher provide the situation in which the students get an opportunity to have the mastery over the selected skill/skills.

The final goal of teaching learning process is to realize the instructional objectives. Therefore, it is desired that the teacher is to follow the objective based approach. For each and every topic of Environmental Studies, the instructional objectives must be identified and listed properly. The teacher will select the content and activities as per the requirements of objectives. The objectives are, however, the source of dividing what materials to use, what strategy of instruction to adopt, and what activities to provide. This objective based approach to Environmental Studies facilitates the teacher to do the evaluation effectively.

From the above illustrations it is concluded that the Environmental Studies is taught by adopting the 'Learner-Centred Approach' directly or indirectly. It means the learner is the main focus and not the teacher. The teacher works as a facilitator/guide, not as a master. Active involvement or participation of learners is ensured. The curriculum is also set as per the needs, interests, aptitudes, and abilities of the learners at different levels so that the allround development of learners is realised.

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Job Satisfaction Scale (JSS)

Dr. B. L. Dubey, Prof. K. K. Uppal and Dr. S. K. Verma

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A Study of Value Systems in Relation to Prolonged Deprivation

Dr. B. Jha 'Suman'¹, Dr. Kishore Kumar² and Dr. Ashok Kumar³

INTRODUCTION

The word 'deprivation' means certain deficiencies in environment which are not only there but are also experienced as such by the individual (Sinha, 1977). According to Mishra and Tripathi (1977) deprived people are those who are Materialistically, Socially and Psychologically handicapped for fulfilment of biogenic as well as sociogenic needs and acquisition of diverse experiences. They have coined the term 'Prolonged deprivation' because in their opinion accumulation of experiential variety and extent is the outcome of relatively longer periods in a natural setting. So they like to call it 'Prolonged deprivation.'

Numerous researches have been done to explore the effect of deprivation on various motivational and personality aspects of the individual. But there is dearth of direct evidence with regard to effects of the individual. But there is dearth of direct evidence with regard to effect of deprivation on value-systems of the individual. The present study aims at proving the effect of deprivation on value systems.

The following hypotheses were framed to be tested empirically :

- (i) It was hypothesized that high and low deprived Ss will differ significantly with respect to their Aesthetic value.
- (ii) It was hypothesized that high and low Ss will differ significantly with respect to their Religious value.

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1. Professor & Head, P. G. department of Psychology, T. P. College, Madhepura Bihar.
 2. Lecturer, Department of Psychology, B. N. M. V. College, Sahugarh, Madhepura.
 3. Lecturer, Department of Psychology, P. Sc. College, Madhepura.

(iii) It was hypothesized that high and low *Ss* will differ significantly with respect to their Social value.

(iv) It was hypothesized that high and low *Ss* will differ significantly with respect to their Economic value.

(v) It was hypothesized that high and low *Ss* will differ significantly with respect to their Theoretical value.

(vi) It was hypothesized that high and low *Ss* will differ significantly with respect to their Political value.

Sample and Method: The sample comprised 350 college students of Madhepura District. First of all prolonged Deprivation Scale (Mishra & Tripathi, 1977) was administered on 267 male students. There after, value scale (Gilani, 1984) was used to measure various value-systems of the students under study. On the basis of scores obtained on PDS the students were divided into high and low deprived groups. In high deprived group there were 77 students and in low deprived group there were 76 students.

To analyse the data on six value dimension as measured by value test, *t*-test was applied.

Findings: (i) Low deprived group ($M=41.78$) scored significantly higher on Aesthetic value than the high deprived group ($M=36.23$). The difference between the two means was significant beyond .01 level of confidence ($t=4.49$).

(ii) Low deprived group ($M=40.87$) scored significantly higher on religious value than the high deprived group ($M=36.74$). The difference between the two means was significant beyond .01 level of confidence ($t=3.71$).

(iii) Low deprived group ($M=37.37$) scored significantly higher of social value than the high deprived group ($M=33.19$). The difference between the two means was significant beyond .01 level of confidence ($t=3.49$).

(iv) Low deprived group ($M=43.26$) scored significantly higher of Economic value than the high deprived group ($M=39.78$). The difference between the two means was significant beyond .01 level of confidence ($t=3.09$).

(v) Low deprived group ($M=41.46$) scored significantly higher of Theoretical value than the high deprived group ($M=38.47$). The difference between the two means was significant beyond .01 level of confidence ($t=2.93$).

(vi) Low deprived group ($M=36.28$) scored significantly higher on political value than the higher deprived group ($M=31.85$). The difference between the two means was significant beyond .01 level of confidence ($t=3.72$).

DISCUSSION AND CONCLUSIONS

On the basis of results obtained following conclusions can be drawn :

(i) Aesthetic value is characterised by appreciation of beauty, love for fine arts, love for literature, love for decoration and system in the arrangement of the things. On the basis of our results we can say that LD and HD groups differ significantly with respect to this value system. This is due to the fact that high deprived group has neither the time nor the means to think of all these. High deprived Ss, because of their poor Socio-economic conditions, have to fight for their basic needs. There are studies which support this contention that Socio-economically disadvantaged individuals scored lower on Aesthetic value than the advantaged individuals (Singh, 1986, Kundu and Sanyal, 1984; Raw, 1975; Parmesh, 1971).

(ii) Religious value is defined in terms of faith in God and religion. The outward acts of behaviour expressive of this value are going on pilgrimage, living a simple life, having faith in religious leader, worshiping God and speaking the truth. The LD group has a maximum mean score. It is due to the fact that LD Ss get religious training during the period of development by their parents and members of their family. They have means; So they practice religious acts.

(iii) Social value is defined in terms of charity, kindness, love and sympathy for the people. On this basis of our mean scores we can say that these virtues are found more in low deprived people because they are resourceful and thus they can translate these virtues into their behaviour.

(vi) We know that the economic value stands for desire for money and material gains. A man with economic value is guided by consideration of money and material gains in the choice of his job. Low deprived persons are comparatively affluent. They are conscious of money and matter. That is why they think to have more and possess positive attitude towards the rich.

(v) We know that the Theoretical men are empirical, critical and rational. They are intelligent-Scientists or Philosophers. Low deprived Ss have all these qualities whereas high deprived Ss have no facilities to develop all these qualities. Hence, high deprived Ss lack all these qualities. Singh, *et. al.* (1990) have supported this fact.

(vi) Political value is related to the interest of a man in power, prestige and place in society. The results indicate that low deprived people are politically more active. They are conscious of their place in Society. The lower political value of HD Ss indicate that they are not interested in power Politics. They are contented with what they have.

On the basis of the above facts we can say that, as far as various value systems are concerned, low deprived people are comparatively superior to high deprived people. It means that low deprived people differ significantly from high deprived people with respect to various value systems.

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Identify the Problems Faced by Various Subject Matter Specialists

Subhash Chandra¹ and P. N. Kalla²

15 वैज्ञानिकों द्वारा दृष्टिगत बाधाओं का अध्ययन किया गया। गणवेशन के आधार पर “अपर्याप्त तकनीकी जो कि किसानों के लिये उचित है, को प्रथम स्थान दिया गया”। “किसानों में उत्साह की कमी” और “प्रशिक्षण सुविधा की कमी” इसका अनुसरण करती है। कृषि विज्ञान केन्द्रों के प्रभावशाली कार्यरत होने में वैज्ञानिकों द्वारा बारह बाधाएँ बताई गयी।

The major constraints for low agricultural production in India are lack of irrigation facilities, uncertain rainfall low fertility status of soil and lack of transfer of technology from the research laboratories to its ultimate users i.e. the farmers. To keep pace with increase in population which is likely to grow to 933 million in 2000 AD, we need to produce nearly 225 million tonnes of food grain to meet our requirements at current level of per capita consumption.

This can only be achieved by putting proper efforts for transfer of technology from research laboratories to the per unit time.

METHODOLOGY

This part of the questionnaire deals with the identification of constraints as perceived by the scientists in effective implementation of the programmes of Krishi Vigyan Kendra. In this part all the possible constraints were listed out and responses of the respondents towards a particular enquiry were recorded on the basis of percentage.

The data in table-1 presents the constraints coming in way for effective implementation of the programmes of KVK as perceived by 15 scientists concerned.

¹ Subhash Chandra, A post graduate student, Department of Extension Education, S.K.N. College of Agriculture, Jobner 303329 (Rajasthan).

² Dr. P. N. Kalla, Associate Professor, Department of Extension Education, S. K. N. College of Agriculture, Jobner-303329 (Rajasthan).

Table-1 : Constraints coming in way for effective implementation of the KVK programmes in the villages as perceived by the scientists.

N=15

S. No.	Types of constraints	Number of responses	Percentage of responses	Rank position
1.	Lack of inter-personal relation	4	26.66	10
2.	In-adequate technologies suited to the farmers conditions	13	86.66	1
3.	Lack of resources and inputs with farmers	10	66.66	4
4.	Lack of transport facilities	7	49.99	7
5.	Lack of the motivation among the farmers	12	80.00	2
6.	Lack of incentives and recognition to the scientists	6	40.00	8
7.	Lack of leadership at KVK	3	20.00	11
8.	Paucity of budget	11	73.33	3
9.	Specialists being used more as journalists than extensionist.	8	53.33	3
10.	Lack of Co-ordination with other developmental departments	5	33.33	9
11.	More emphasis on table work	9	60.00	5
12.	Political Interference	2	13.33	12

Their responses were recorded against twelve aspects. It may be elucidated that "in-adequate technologies suited to the farmers conditions" was ranked first important constraints in implementation of the KVK programmes effectively.

The next constraints seemed to be "Lack of coordination with other developmental departments (33.33) percent "Inter personal relationship" (26.66) percent; "Lack of leadership" (20.00) percent; and Political interference (13.33) percent.

CONCLUSION

The constraints perceived by the scientists were studied. The findings revealed that Inadequate technologies suited to the farmers" was ranked first followed by 'lack of motivation among the farmers' and 'Lack of training facilities'. The scientists reported twelve constraints in effective working at KVK.

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APRC : NEW TEST PUBLISHED

Job Satisfaction Scale (JSS)

Dr. B. L. Dubey Prof. K. K. UPPAL and Dr. S. K. Verma

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BOOK REVIEW

Karl G. Heider (1991) : *Landscapes of Emotion : Mapping Three Cultures of Emotion in Indonesia*. Cambridge U. Press. Camb. New York.

The book runs into 332 pages, having both author -subject indices and an upto date exhaustive bibliography.

The main focus of this simple, pointed yet highly absorbing book, is upon the cultural construction of emotion. The anthropological enquiry of emotion conducted over three culture-groups, has successfully come out, with sample clarity and logic. with the fact that the culture of emotion in the study-groups is really different.

The methodology portion, for procuring the way for direct comparison between culture of emotion, is strikingly valuable for cross-cultural psychology.

The book provides highly useful information and guidance to those engaged in multi-disciplinary enquiry across cultures.

The book is strongly recommended for libraries.

Dated : March, 10, 1992.

(Dr. N. S. Chauhan)

Ph.D. ; D. Litt.

University Professor of Psychology,
D-69, Shastri Nagar, Meerut-250 (U. P.)

Alienation Among Adolescent Students as Related to Their Sense of Deprivation

Dr. B. P. Verma* & Km. Ranju Lata Nayak

The present investigation was undertaken to study the alienation among adolescent students in relation to their sense of deprivation. The results revealed that powerlessness, isolation and overall alienation of adolescent students was significantly affected by the magnitude of their sense of deprivation.

INTRODUCTION

The concept of sense of deprivation was introduced to explain the mechanism through which deprivation exerts its influence on the development of the child. The underlying assumption is that deficient environment in itself, is not sufficient for producing declared development in the child rather it is the sense of deprivation which affects the growth and development of the child. It is generally presumed that cognitive as well as affective aspects of the child's personality are affected by the magnitude of his/her sense of deprivation.

Alienation is a non-cognitive trait of the personality which refers to a syndrome of powerlessness, normlessness, meaninglessness, isolation, and self-estrangement. A variety of disturbing behaviours of adolescent students seem to stem from their feelings of alienation. For instance, under-achievement, absentism, dropouts, physical and verbal aggression, hostility, delinquency and the like behaviours are natural consequences of alienation.

Recently many educators have expressed special concern about the strong feelings of alienation among adolescent students. A number of studies have also been conducted on alienation and its relationship with socio-economic status and socio-cultural deprivation (White, 1968; Crowden, 1970; Martin, 1971; Natsis, 1974; Allen, 1974; Mohanty, 1984; Verma and Nayak, 1990). But so far, no attempt has been made by any researcher to study adolescent's alienation in relation to their sense of deprivation. The present study addresses itself to such inquiry.

*Reader, Department of Education, Himachal Pradesh University, Shimla - 171005 (HP).

For realizing the stipulated goal of the study six null hypotheses were formulated which were subsequently subjected to testing.

METHOD

Sample : The study was conducted on a sample of 200 rural adolescent students of class XI and XII, selected from five colleges of Baleshwar District of Orissa. The sample included students of both the sexes. The institutions were located in rural area. The selection of institutions and subjects was made by random sampling technique.

The Tools : In consonance of the stipulated objectives of the study, tools measuring sense of deprivation and alienation were needed for data collection. After scrutinizing the available tools, the following were selected for the use in the study :

- (i) Self-Expression Inventory (SEI)
- (ii) Student Alienation Scale (SAS).

A brief description of both the tools is given below :

(i) *Self-Expression Inventory* : For measurement of sense of deprivation (SOD), "Self-Expression Inventory" (SEI) developed by R.P.Varma and Usha Upadhyaya (1984) was used. This contains 30 items and each item has two parts. The first part deals with the stem question and the second part deals with four alternative responses, in which two of the alternatives are related to sense of deprivation i.e. 'yes' response to which shows the respondent's sense of deprivation and two of the alternatives are neutral statements i.e. 'yes' response to which does not show any sense of deprivation. Thus there are 60 responses in all that relate to sense of deprivation. These 60 responses are equally divided into two areas i.e. 30 responses are related to sense of deprivation to school environment and other 30 to sense of deprivation to home environment. The scale is based on forced choice technique. Test-retest and split-half reliability have been found to be satisfactory. The validity has also been determined in terms of cross validity and construct validity.

(ii) *Student Alienation Scale (SAS)* : Alienation of the students was measured by "Student Alienation Scale" (SAS) developed by Dr. R. R. Sharma (1985). The scale has five dimensions viz., powerlessness, self-estrangement, isolation, meaninglessness and normlessness as defined by Seeman (1959). There are 54 items in all. The subject is required to tick mark (✓) against the column of 'Agree' or 'Disagree'. The reliability has been established by split-half-method, Kuder-Richardson Method, and test-retest method. Validity has been determined in terms of discriminant validity and by calculating correlation of coefficient between the scores on total student alienation scale and the scores on its five dimensions. These were found to be satisfactory.

Statistical Techniques : The data pertaining to student alienation were analysed by one-way-ANOVA and Post-hoc analysis was done by Tukey Test (I).

Procedure : The data were collected by administering 'Self Expression Inventory' and 'Student Alienation Scale' on the subjects following the instructions given in their

respective manuals. Scoring was done with the help of standard keys prepared by the authors of the tools. Scores of 'Self Expression Inventory' were used to form the three groups - HSOD, MSOD and LOSD. For this $M \pm SD$ formula was applied. However, for analyzing the data, an equal number (30) of subjects was kept in each group.

RESULTS

The obtained results with regard to powerlessness, isolation, self-estrangement, meaningfulness, and total alienation have been provided in tables 1 through 9.

Table 1 : Summary of Analysis of Variance in respect of Powerlessness Scores of Sense of Deprivation (SOD) Groups

Source of Variance	SS	df	MS	F-Ratio
Among Groups	58.1	2	29.5	19.36**
Within Groups	132.5	87	1.5	

(**Significant at .01 level)

Table-1 shows that the obtained 'F' value for the effect of sense of deprivation on powerlessness is 19.36. This is highly significant ($P < .01$, $df=2/87$). It implies that there were significant differences in the mean scores of powerlessness of adolescents belonging to high, medium and low level of sense of deprivation. Hence the null hypothesis was refuted.

To pin down the loci of differences among the means of powerlessness, Tukey Test (T) was performed. The obtained results have been presented in Table 2 that follows :

Table 2 : Comparison of Mean Differences of Powerlessness in respect of Sense of Deprivation (SOD) Groups

Group	Comparison Means	M_1	M_2	M_3
Group 1 (HSOD)	$M_1=4.96$	—	(M_1-M_2) 1.33**	(M_1-M_3) 1.93**
Group 2 (MSOD)	$M_2=3.63$			(M_2-M_3) =0.173
Group 3 (LSOD)	$M_3=3.767$			

($T = 0.756$ at .05 Level)

($T = 0.948$ at .05 Level)

(**Significant at .01 Level)

A glance at Table 2 reveals that adolescent students of high sense of deprivation group had significantly greater powerlessness than their counterparts adolescent students of moderate and low sense of deprivation groups. But there was no significant difference in the level of powerlessness of adolescent students of moderate and low sense of deprivation groups. They seemed to have equal magnitude of powerlessness.

Table 3: Summary of Analysis of Variance in respect of Isolation Scores of Sense of Deprivation (SOD) Groups

Source of Variance	SS	df	MS	F-ratio
Among Groups	36.6	2	18.3	4.51*
Within Groups	353.0	87	4.05	

(*Significant at .05 Level)

It may be gleaned from Table 3 that the obtained value of 'F' (4.51) is significant at .05 level of significance with 2/87 degrees of freedom. This clearly suggests that adolescent students belonging to high, medium and low level of sense of deprivation, differed significantly from each other with respect to isolation. The null hypothesis was thus rejected.

Further, for finding out the exact source of significance of difference among means of isolation of the three groups of adolescents students, Tukey Test (T) was used. The obtained results are given in Table 4.

Table 4: Comparison of Mean Differences of Isolation in respect of Sense of Deprivation (SOD) Groups

Group	Comparison Means	M_1	M_2	M_3
Group 1 (HSOD)	$M_1 = 5.63$	—	$(M_1 - M_2)$ $= 1.397^*$	$(M_1 - M_3)$ $= 1.3^*$
Group 2 (MSOD)	$M_2 = 4.233$			$(M_2 - M_3)$ $= 0.097$
Group 3 (LSOD)	$M_3 = 4.33$			

(*Significant at .05 Level)

($T = 1.242$ at .05 Level)

Table 4 exhibits that the adolescent students having high degree of sense of deprivation did possess higher level of isolation than the adolescent students who had moderate and low degree of sense of deprivation. When means of isolation scores of adolescent students of moderate and low sense of deprivation groups were compared, no significant difference was noted. In other words, adolescent students who had moderate and low sense of deprivation showed equal level of isolation.

Table 5 : Summary of Analysis of Variance in respect of Self-Estrangement scores of Sense of Deprivation (SOD) Groups

Source of Variance	SS	df	MS	F-ratio
Among Groups	8.0	2	4	0.07NS
Within Groups	453.3	87	5.21	
Total	461.3	89		

Table-5 shows that the obtained 'F' value (0.07) is insignificant at 05 level of confidence. This leads to the inference that there were no significant differences in the means of self-estrangement of adolescent students belonging to high, medium and low sense of deprivation groups. Hence the null hypothesis stood accepted.

Table 6 : Summary of Analysis of Variance in respect of Meaninglessness Scores of Sense of Deprivation (SOD) Groups

Source of Variance	SS	df	MS	F-ratio
Among Groups	15.36	2	7.68	1.58NS
Within Groups	423.90	87	4.87	
Total	439.26	89		

(NS=Not Significant at .05 Level)

Table-6 reveals that the calculated value of 'F' with regard to meaninglessness came out to be 1.58 with df 2/87, which is insignificant at .05 level. This implies that adolescent

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students belonging to high, medium and low sense of deprivation did not differ significantly on meaning-lessness. Thus the null hypothesis was accepted.

Table 7 : Summary of Analysis of Variance in respect of Normlessness Scores of Sense of Deprivation (SOD) Groups

Source of Variance	SS	df	MS	F-ratio
Among Groups	28.13	2	4.05	1.76 NS
Within Groups	696.47	87	8.005	
Total	724.6	89		

(N.S = Not Significant at .05 Level)

Table-7 demonstrates that the obtained 'F' value (1.76) with respect to normlessness is not significant even at .05 level of confidence. It may be concluded from this that there was no significant effect of sense of deprivation on normlessness of adolescent students. Alternatively it may be said that adolescent students with high, medium and low level of sense of deprivation did not exhibit any significant difference in their mean scores of normlessness. The null hypothesis formulated with respect to normlessness was thus accepted.

Table-8 : Summary of Analysis of Variance in respect of Total Alienation Scores of Sense of Deprivation (SOD) Groups

Source of Variance	SS	df	MS	F-ratio
Among Groups	136.13	2	68.1	4.60*
Within Groups	1289.87	87	14.8	
Total	1426.0	89		

(*Significant at .05 Level)

A perusal of Table 8 points to the fact that the obtained value of F-ratio (4.60) is significant at .05 level with *dfs* 2/87. It indicates that there was a significant effect of

sense of deprivation on overall/total alienation of the adolescent students. In other words adolescent students belonging to high, medium and low sense of deprivation groups differed significantly with respect to overall or total alienation. Hence the null hypothesis framed with respect to overall alienation was rejected.

In order to ascertain the exact source of difference in overall alienation of adolescent students, Tukey Test (T) was applied. The obtained results have been reported in Table-9.

Table-9 : Comparison of Mean Differences of Total Alienation in respect of Sense of Deprivation (SOD) Groups

Group	Comparison Means	M_1	M_2	M_3
Group 1 (HSOD)	$M_1 = 31.0$	—	$(M_1 - M_2)$ $= 3.00^*$	$(M_1 - M_3)$ $= 1.27$
Group 2 (MSOD)	$M_2 = 28.0$			$(M_2 - M_3)$ $= 1.93$
Group 3 (LSOD)	$M_3 = 29.973$			

(* Significant at .05 Level)

($T = 2.375$ at .05 Level)

A look at Table-9 tells that there was a significant difference in the mean alienation scores of adolescent students of high, and medium sense of deprivation groups. It is also clear that high sense of deprivation group had significantly higher level of overall alienation than the moderate sense of deprivation group. Table-9 further shows that there was no significant difference between mean scores of overall alienation of high and low sense of deprivation groups. Also, no significant difference was noted between the mean scores of overall alienation of medium and low sense of deprivation groups.

DISCUSSION

The findings of the study indicate that powerlessness and isolation dimensions of alienation were significantly affected by the degree of sense of deprivation among adolescents students. It was also evident that overall alienation felt by adolescent students was affected by their sense of deprivation in a significant manner. Since in most of the studies, inverse relationship has been found between socio-economic status and sense of deprivation, it may be conceived that adolescent students with greater sense of deprivation may have higher level of alienation than their counterparts with lesser sense of deprivation.

Though no research study seems to have been conducted which either contradicts or supports the findings of the present investigation directly, several studies lend support these in indirect manner (see White, 1968; Martin, 1971; Natsis, 1974; Allen, 1974; Verma and Nayak, 1990). In these studies, it was concluded that students with low socio-economic status were more alienated than those students who had high level of socio-economic status.

Natsis (1974) reported that members of low socio-economic status group significantly exhibited more pessimism and distrust. Allen (1974) also concluded that at the twelfth grade level, degrees of disadvantagedness was most closely associated with feelings of alienation. There was a general tendency for the whites to feel less alienated and the Blacks to feel more alienated as they progressed from grade ninth to twelve.

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Study on Value Orientation, Knowledge and Adoption Behaviour of Sericulturists in Dharwad District Karnataka

***M. Shivamurthy **Ansari M. R. Venkataranganaika, K.**

INTRODUCTION

Sericulture in India has turned out to be a remunerative occupation with minimum investment with rich dividends. It plays a vital role in transferring rural people into rich. Besides, providing whole time and part-time employment to more than five million people, especially to those who are economically weak and backward in rural areas.

In recent days, sericultural scenerio has changed from conventional methods and techniques to innovative methods and techniques. These technological changes have opened up a new era in India sericulture. These new technologies have established their superiority over the traditional methods. It is therefore, believed that the adoption of such technologies would lead to the socio-economic development of the people. Keeping this background in view the present study has been an attempt. To know the value orientation of sericulturists in relation to their knowledge and adoption of recommended sericultural practices.

METHODOLOGY

The study was conducted in two taluks viz., Ranebennur and Shirahatti of Dharwad district in Karnataka. Six villages from each taluk were selected based on the criteria of maximum area under mulberry and number of sericulturists. From each village ten farmers practicing sericulture, were selected as respondents by using proportionate random sampling method. Totally 120 respondents were selected as simple for

* Instructor, Department of Agril. Extension, UAS, Bangalore.

** Associate Professor, Dept. of Agril. Extension, UAS, Dharwad.

*** Instructor, Department of Agril. Extension, UAS, Bangalore.

the study. Data were collected by personal interview method using structured schedule through personal interview method. In this study value orientation is defined as values which people attached to things, conditions and circumstances. They were also regarded as goals and objectives to which people oriented their thinking, feelings and actions.

Selected Variables and Measurement :

In order to quantify the values held by sericulturists, the procedure suggested by Supe and Sing (1973) was used. The scale was used with slight modification and converted into two-point scale, agree and disagree. A score of one was given to all positive statements and zero to all negative statements. Respondents were classified into two categories conservatism V/s Liberatism, Localiteness V/s Cosmopoliteness, Fatalism V/s Scientificism, Low aspiration V/s High aspiration on each values based on choice of values.

The knowledge index and adoption quotient of sericulturists with respect to the recommended sericultural practices was measured by employing knowledge index suggested by Anastasi (1961) and adoption quotient developed by Sengupta (1967) respectively.

$$\text{Knowledge Index} = \frac{\text{Number of correct responses}}{\text{Total number of knowledge items}} \times 100$$

Based on the mean and standard deviation of the knowledge index the respondents were grouped into three category.

Category	Score
Low	Below (Mean - 0.425 SD)
Medium	Between (Mean $\pm$ 0.425 SD)
High	Above (Mean + 0.425 SD)

Similarly, adoption level was measured by using Sengupta's (1967) procedure.

$$\text{Adoption Quotient} = \frac{\text{Score obtained}}{\text{Maximum adoption score obtainable}} \times 100$$

Based on the adoption quotient score respondents were grouped into three categories, keeping mean and standard deviation as a measure of check.

Category	Score
Low	Below (Mean - 0.424 SD)
Medium	Between (Mean $\pm$ 0.425 SD)
High	Above (Mean + 0.425 SD)

RESULTS AND DISCUSSION

Table-1 : Differences in the mean knowledge and adoption levels among different value orientation of sericulturists.

Sl. No.	Category	Number of Respondents	Percent	n =	
				Mean knowledge index	Mean adoption score
1.	Conservatism V/S	32	26.70	38.70	52.92
	Liberalism	88	73.30	65.43	65.84
2.	Localiteness V/S	34	28.30	52.60	57.27
	Cosmopoliteness	86	71.70	59.56	64.78
3.	Fatalism V/S	08	6.70	43.32	51.09
	Scientificism	112	93.30	71.54	74.62
4.	Low aspiration V/S	06	5.00	41.21	48.98
	High aspiration	114	95.00	42.91	80.23

The data in Table-1 reveals that, progressive values like liberalism, cosmopoliteness, scientificism, and high aspirations were held by 73.3, 71.1, 93.3 and 92.5 percent of respondents, and their respective knowledge index score range between 59.56 to 72.91. On the other hand, the respondents who had non-progressive values were low knowledge range (38.70 to 52.60). Further, it could be observed from the table that same trend is noticed with respect to adoption of sericultural practices. Possibly, it may be due to more contact with other sources outside the community, must have broadened the mental horizons of sericulturists for having values like liberalism and scientificism resulted in increased adoption. This finding is in line with Somasundaram (1979) and Patil (1981).

Table-2 : Distribution of respondents on knowledge level of sericultural practices.

Sl. No.	Category	No. of Farmers	Percentage	Mean knowledge Index
1.	Low	33	(27.50)	41.50
2.	Medium	42	(35.00)	56.03
3.	High	45	(37.50)	72.07

A cursory look at the table-2 reveals that, more number of farmers had high to medium knowledge about sericultural practices, only 27.5 percent of farmers had low knowledge about sericultural practices. Therefore, the respondents knowledge pattern was unevenly distributed. Besides their mean knowledge index was high among farmers who had more knowledge than the lower category. Thus, it is inferred that the knowledge level of farmers with respect to sericulture is varied.

Table-3 : Distribution of respondents with respect to adoption of sericulture practices.

Sl. No.	Category	No. of farmers	Percentage	Mean Adoption Score
1.	Low	44	(36.70)	56.57
2.	Medium	43	(35.80)	68.65
3.	High	33	(27.50)	77.80

It could be observed from the Table-3 that, the respondents were un-evenly distributed, among three categories, and less number of farmers have adopted more number of sericultural practices; in contrast to lower categories. Wherein majority had low mean adoption score. And 35.80 percent of farmers had medium adoption pattern. This trend may be due to the fact that, the adoption of innovation is closely associated with knowledge about cultivation and rearing practices, timely availability of inputs and credit etc., lack of knowledge and high cost of inputs and non-availability may be the reason for lower category of farmers.

CONCLUSION

It is an established fact, that social values play an important role in one's own life and acts as a driving force. Therefore, possession of progressive values helps an individual to move towards new experiences leading to recognition, resulted in increased knowledge and adoption of sericultural practices by the farmers who had possessed progressive values.

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A Study on Youth's Opinion Towards Choice and Arranged Marriages

Uma Devi L.* and Dr. Venkatramaiah P.**

The present study was conducted with a sample of 180 students drawn randomly from the III year classes of professional and non-professional colleges of Bapatla town of Guntur District in Andhra Pradesh with an objective of observing the association between sex and type of marriage preferred. The results indicated that youth are still preferring marriage within the same caste, ritualistic marriage ceremony, horoscope. There is significant difference in the type of marriage preferred by males and females. Boys preferred love marriage and girls preferred arranged marriage with the consent of parents. There is no significant difference as far as the reasons expressed for the type of marriage preferred.

INTRODUCTION

Marriage is a merger of two human personalities, whether parents select the partner or the young people choose their own partners, mate selection is important because it is a life time decision. There can not be a change of life mates as they are partners until death. Therefore while selecting a partner, each individual should see within his or her field of eligibles or a person who can give a promise or by providing him or her with maximum need qualification. Each partner should have similar expectations of marriage which lie at the basis of marital success or failure.

Due to the constant influence of the individualistic view point now a days educated men and women want freedom in the selection of their life partner. Matrimonial choices can be taken place in two ways, by partners themselves and through parents mediation. Some parents think that it is worth while to consult the concerned partners before

* Assistant Professor, Department of Human Development and Family Studies, College of Home Science, Bapatla-522101.

** Professor and Head, Department of Extension, Agricultural College, Bapatla-522101.

finalization of marriage. Others go ahead without obtaining even the necessary consent. Some immature partners enter into wedlock ignoring the parents altogether.

Love at first sight and in some cases democratic freedom and equality are predominant factors in the final choice on one's spouse.

At the core of marriage is love and at the core of love is craving for union between two human intellects, wills, hearts and bodies. Before entering marriage each individual must make a wise choice of the partner. The partners should have a thorough knowledge of marriage and what one wants in a marriage and the qualities essential for a good selection.

Dr. Radhakrishnan has remarked that our young men and women should take help from their parents in choosing their partners. Youth is a stage where there is predominance of prestige and sacrifice. Young men and women make love as their goal and before it they undermine these things which are related to family, society religion and caste. There is no special reason why young men should not consult their parents or take them in confidence while selecting their life partners.

The matrimonial choices are influenced by a number of factors according to individuals attitude as well as socio-cultural norms. These are very important in our life and society for the establishment and development of happy homes.

Keeping the above facts in view, a study was conducted with the following objectives :

1. To study the opinion of youth towards ideal age for marriage for boy and for a girl and ideal age difference between boy and girl for marriage.
2. To know the youth's opinion towards selection of partner based on caste, preference for type of marriage ceremony and tallying of horoscope.
3. To study the opinion of boys and girls towards the type of marriage preferred.
4. To investigate the reasons for the selection of type of marriage and find out whether there is any significant difference between boys and girls in giving reasoning for type of marriage preferred.

METHODOLOGY

The sample constitutes III year students of Professional and Non-Professional Colleges situated at Ilapatla town of Guntur District of Andhra Pradesh. 90 boys and 90 girls from 4 professional colleges and one non-professional college with equal number from each college were selected by random sampling. Data was collected by administering the pretested questionnaire. Socio-economic status scale developed by Venkatramiah (1990) was used to know the SES of the respondents and a five-point rating scale starting

from strongly agree (5), agree (4), undecided (3), disagree (2) and strongly disagree (1) was used to know the opinion of youth in selecting the type of marriage.

The data thus obtained was subjected for statistical analysis through 't' and 'z' tests.

Table-1 : General information particulars of the sample.

(N=180)

S. No.	Particulars of the item	Males	Females
1.	Age		
	Below 20 years	17 (18.89)	48 (53.3)
	20 years	45 (50.00)	34 (37.8)
	21 years	15 (16.67)	8 (8.9)
	22 years	13 (14.44)	0 (0)
2.	Socio economic status (SES)		
	Upper	4 (4.44)	3 (3.33)
	Upper Middle	24 (26.68)	42 (46.67)
	Middle	46 (51.11)	40 (44.44)
	Lower Middle	12 (13.33)	5 (5.56)
3.	Religion		
	Hindu	83 (92.23)	85 (94.45)
	Muslim	4 (4.44)	3 (3.33)
	Christian	3 (3.33)	2 (2.22)

Note : Figures in the paranthesis indicate percentages.

Table-1 depicts that 53.3% of females are below 20 years, 37.8% are 20 years and only 8.9% are 21 years in age. None of them are 22 years old. In case of boys 18.89% are below 20 years, 50% are 20 years old, 16.67% are 21 years old and only 14.44% are 22 years old. Majority of the sample belongs to upper middle and middle in socio economic status (SES). Ninety per cent of males and females belongs to Hindu religion and neglig.ble percentages of sample belongs to Muslim and Christian communities in case of both males and females.

Table-2 : Preferences given by males and females in selecting the partner based on caste, type of marriage ceremony, horoscope and status of marriage.

(N=180)

S. No.	Particulars of the preferences	Boys	Girls
1.	Preferred to Marry		
(a)	Within the sub-caste	4 (4.44)	14 (15.56)
(b)	Within the Caste	47 (52.22)	60 (66.67)
(c)	Inter Caste	32 (35.56)	16 (17.77)
(d)	Inter religio	7 (7.78)	0 (0)
2.	Type of marriage ceremony preferred		
(a)	Ritualistic	61 (67.78)	46 (51.11)
(b)	Non-ritualistic	29 (32.22)	44 (48.88)
3.	Tallying of Horoscope		
(a)	All points should tally	13 (14.44)	4 (4.44)
(b)	Some points should tally	35 (38.88)	33 (36.67)
(c)	Not necessarily tally	42 (46.67)	53 (58.89)
4.	Status of Marriage		
(a)	Engaged	34 (37.78)	12 (13.33)
(b)	Not engaged	56 (62.22)	78 (86.67)

Note : Figures in the paranthesis indicate percentages.

Table-2 reveals the preferences given by males and females in selecting the partner based on caste, type of marriage ceremony, horoscope and status of marriage. Regarding the selection of the partner 4.44% of males preferred to have partner within the sub-caste, 52.22% preferred to have within the caste and 35.56% preferred intercaste mate and only 7.78% preferred mate from other religion. In case of girls 15.56% preferred to choose partner from within the sub-caste, 66.67% preferred to choose from within the caste and only 17.77% preferred from intercaste and none preferred to have mate from other religion. This clearly shows that castism is still prevailing in our society and education has no effect on changing the attitudes of youth towards caste system. It is quite significant to note that the girls are giving more preference to caste as compared to boys.

Results of type of marriage coremony preferred reveals an interesting outcome. 67.78% of males preferred ritualistic marriage by following all customs and traditions and only 32.22% preferred simple non-ritualistic marriage. In case of girls 51.11% preferred ritualistic marriage and 48.89% preferred non-ritualistic marriage. Boys preferred ritualistic marriage ceremony more than girls. The reasons for preferring ritualistic type might be as marriage is an important event taken place only once in life, so it should be celebrated ritualistic enough. The reason for preferring non-ritualistic marriage ceremony might be whatever form it might be, the final result is the union of boy and girl as life long partners. For that there is no need to spend so much of money and time, so better to opt simple form of ceremony to suit the present day financial position.

Regarding Horoscope, 14.44% of males considered that all points should tally before finalization of marriage and 38.33% considered that atleast some points should be tallied and only 46.67% are not giving importance to tallying of Horoscope. In case of girls 4.44% preferred tallying of all points of Horoscope and 36.67% considered tallying of atleast some points and nearly 60% are not considered tallying of Horoscope at all. On the whole the educated youth are still giving preference to Horscope. Compared to girls, boys are giving more preference to Horoscope.

Regarding status of marriage of respondents 37.78% of the males are already engaged through love or through arranged marriage and 62.22% are not engaged. Regarding girls 13.33% are engaged and 86.67% are not engaged. Majority of the boys and girls are not engaged as they are still continuing their studies.

Table-3 : Youth's opinion towards right age for marriage for boy.

(N=180)

S. No.	Sex of the respondents	18—20 years	21—25 years	25 and above
1.	Boys	2 (2.2)	73 (8.1)	15 (16.7)
2.	Girls	7 (7.7)	41 (45.6)	42 (46.7)

Note : Figures in the paranthesis indicate percentages.

Table-3 shows the youth's opinion towards the right age for marriage for boy. Regarding boys 81.1% of boys considered the age between 21-25 years is an ideal age for marriage for boys and only 16.7% considered more than 25 years and only 2.2% considered age between 18—20 years as an ideal age for boys. In case of girls 45.6% considered the

age between 21 – 25 years as an ideal age for boys and 46.7% considered 25 years and only 7.7% considered 18 – 20 years as an ideal age for marriage. This results clearly shows that the concept of increase at age of marriage is clearly understood and youth realized the advantages of increased age at marriage. The reasons might be by 25 years they will be settled down in jobs and also get maturity so that they could lead a happy married life. Compared with boys, girls preferred 25 years and more as an ideal age for boy for marriage.

Table-4 : Youth's opinion towards the right age for marriage for girls.

(N=180)

S. No.	Sex of the respondent	18 years	19 – 21 years	22 years and above
1.	Boys	20 (22.2)	50 (55.6)	20 (22.2)
2.	Girls	8 (8.9)	23 (25.6)	59 (65.5)

Note : Figures in the paranthesis indicate percentages.

Table-4 reveals the youth's opinion towards the right age for marriage for girls. 55.6% of boys preferred 19 – 21 years as a suitable age for marriage for girls and 22.2% preferred 22 years and above as an ideal for marriage for girls. Regarding girls 65.5% preferred that 22 years and above as an ideal age for marriage and 25.6% preferred 19 – 21 years and 8.9% preferred 18 years. 8.9% preferred 18 years as an ideal age for marriage for girls. Compared to boys, girls preferred increased age at marriage for girls. As the sample is educated, girls might think that by age 22 years they can finish off their studies and get full maturity to enter into marriage and lead a happy married life. Boys still considered that a girl should get married by 20 – 21 years which clearly shows that they are still giving preference to our customs and traditions. These findings are supported by Lasswell Mercint (1974), which indicated that a successful marriage is best achieved when women are 25 and men are 28 years old.

Table-5 : Youth's opinion towards ideal difference in age between boy and girl for marriage

(N=180)

S.No.	Sex of the responnent	1-2 yrs.	3-4 yrs.	4-5 yrs.	5-10 yrs.	More than 10 years
1.	Boys	15 (16.67)	48 (53.3)	22 (24.4)	4 (1.1)	1 (1.1)
2.	Girls	16 (18)	53 (58.7)	20 (22.2)	1 (1.1)	0 (0)

Note : Figures in the paranthesis indicate percentages.

Table-5 reveals that 50% of the sample considered 3-4 years age difference is ideal whereas 24.4% of boys preferred 4-5 years age difference and 16.67% preferred 1-2 years age difference and 1.1% considered more than 10 years of age difference. Similar trend is seen in case of girls also. 18% of the girls preferred 1-2 years age difference, 58.7% preferred 3-4 years difference, 22.2% preferred 4-5 years difference and 1.1% preferred 5-10 years age difference. In olden days the age difference of 5-10 years was considered. Now the trend has changed. Even though youth in present study is preferring age difference between 3-4 years in most cases and not exceeding 5 years in most of the cases. The reasons might be as the husband is older than wife, she will give more respect to him, another reason is that girls mature earlier than boys. So if husband is older than wife their understandings and ideas, way of thinking will be similar, and one more important reason is that girls will become physically older quickly than boys. That is why there should be atleast 3-4 years age difference between boy and girl. Studies conducted by Presser Harriet (1975) revealed a declining trend in the age difference between men and women at the time of marriage from 4 years to half that in 1970.

Table-6 : Sex wise preferences for type of marriage.

(N=180)

S. No.	Sex	Type of marriage preferred			
		Arranged marriage with consent of youth	Arranged marriage without consent of youth	Love marriage with consent of parents	Love marriage without the consent of parents
1.	Boys	23 (25.56)	3 (3.33)	56 (62.22)	8 (8.89)
2.	Girls	62 (69)	3 (3.31)	21 (23.3)	4 (4.4)

Note : Figures in the paranthesis indicate percentages.

Table-6 shows sex-wise preferences for type of marriage. There is significant difference in males and females regarding type of marriage preferred. 25.5% of males preferred arranged marriage with consent of youth and 3.33% preferred arranged marriage without consent of youth and majority i.e. 62.22% preferred love marriage with consent of parents. In case of females majority 59% preferred arranged marriage with consent of youth. Coeducation and getting opportunity to participate in social activities does not make any change in the selection of type of marriage by girls. Less than 25% preferred love marriage with consent of parents and 3.33% preferred arranged marriage without consent of youth and 4.4% preferred love marriage without consent of parents. One the whole boys are ahead in their selection of their partners by themselves than girls, but still considered to take consent of parents which clearly reveals that though the selection is by themselves, for settlement of marriage they are preferring to involve parents as they are experienced. This is in conformity with the findings of Rao and Rao (1976) and Saroja and Surendra (1990).

Table-7 (a) : Reasons expressed for preferring arranged marriage with the consent of youth by males and females

(N=180)

S.No.	Particulars of the reasons	Z value	
		-----	Obtained table
1.	Approval of youth will be there	-1.3NS	1.96
2.	Youth will be satisfied	-2.2NS	
3.	Youth will have a chance to express their feelings	-1.46NS	
4.	Youth will have a chance to see their partners	-4.9NS	
5.	For happy married life	-0.9NS	

NS : Not Significant.

From Table 7 (a) it is clear that there is no significant difference in reasons expressed by male and female youth for preferring, arranged marriage with consent of youth. For all five reasons the 'Z' value obtained is less than the table value at 5% level. Both males and females have given similar reasons for selection of arranged marriage with consent of youth. This type of marriage is more popular and accepted more in our society.

Table-7 : (b) Reasons expressed for preferring arranged marriage without the consent of youth by males and females.

(N=180)

S.No.	Particulars of the Reason	't' value	
		Obtained	table
1.	To satisfy parents	1.3*	0.741
2.	To obey social norms	5.0*	
3.	To be obedient son/daughter	14.0*	
4.	Parents will take right decision because of experience	4.2*	
5.	Submissive nature of youth	3.4*	

*Significant at 5% level.

From the above table-7 (b) it is evident that there is significant difference in the reasons expressed by males and females for preferring the arranged marriage without consent of youth. As the 't' value obtained for all five reasons is more than the table value at 5% level. Boys and girls differed in giving reasoning for preferring arranged marriage without consent of youth. As youth's role is neglected in this type very few i.e. 3.33% of males and females preferred and their reasons for opting this type of marriage differ a lot.

Table 7 : (c) Reasons expressed for preferring Love Marriage with the consent of parents by males and females.

(N=180)

S. No.	Particulars of reasons	'Z' Value	
		Obtained	Table
1.	To satisfy personal as well as parent choice	0.8 NS	1.96
2.	Personal choice will be there in selecting the partner	-1.44 NS	
3.	Parents will not have a burden of searching for boy or girl	0.62 NS	
4.	It will be successful	2.17	
5.	Better understanding between two parties will be there	-1.32 NS	

NS : Not Significant.

Table-7 (c) reveals the difference of opinions expressed by males and females for preferring love marriage with consent of parents. There is significant difference in the opinions expressed by males and females for one reason and the difference is not significant in other reasons. Out of 5 reasons the difference is significant for 4 reasons and the 'Z' value obtained is more than table value. The difference is not significant for 1st, 2nd, 3rd and 5th reasons as the 'Z' value obtained is less than table value at 5% level. Compared to boys, girls preference for this type of marriage is less and both are similar in their reasoning for selecting love marriage with parents consent except in one reason.

Table-7 : (d) Reasons expressed for preferring Love Marriage without consent of parents by males and females.

(N=180)

S.No	Particulars of the reasons	't' value	
		Obtained	Table
1.	Personal happiness will be there	-1.2 NS	0.700
2.	To be independent from parents	4.4*	
3.	To cut down the cost of marriage	0.58*	
4.	Parents would not know our requirements	0.96*	
5.	Parents give importance to social norms and old traditions	1.1*	

NS : Not Significant

*Significant at 5% level.

Table-7 (d) shows reasons expressed for preferring love marriage without consent of parents by male and female youth. Very few preferred this type as this type is neglecting completely the parents involvement in settlement of marriage. Even though very few opted this they differ in giving reasoning for preferring. Out of 5 reasons listed the difference is not significant in 1st and 3rd reasons as the 't' value obtained is less than the table value and boys and girls differ much in giving reasoning for 2nd, 4th and 5th items as the 't' value obtained is more than the table value.

CONCLUSION

It is evident that educated boys and girls preferred increased age at marriage and an ideal age difference of 1-4 years to lead a happy married life. Educated youth still

preferred same caste partner, tallying the horoscope and ritualistic type of marriage ceremonies. There is significant difference in the opinion of boys and girls towards love (choice) and arranged marriages as boys preferred love marriages and girls preferred arranged marriages. In Hindu society, marriage is a sacrament and should involve elders in the settlement of marriage. As elders are experienced, they will make wise decisions. Hence both boys and girls preferred to take their elder's consent irrespective of type of marriage preferred.

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Relationship Among the Classroom Environment, Creativity, Academic Self-Concept and Academic Achievement

J. S. Padhi

Regional College of Education Bhopal 462013

This study aims to findout the relationship between the psycho-social characteristics of classroom environment, creative ability, academic self-concept and academic achievement of secondary students. The sample comprised 636 class IX students drawn from both rural and urban schools. The findings of the study revealed that the creative ability and psycho-social characteristics of classroom environment of the students are significantly related to their academic self-concept and academic achievement in all the school subjects.

INTRODUCTION

The educationists, psychologists, social workers and others are interested in improvement of present system of education and quality of life. Many an innovations have been recommended and implemented for the purpose. Some of the implementations were proved ineffective due to the environment existing in our institutions and classrooms.

Our policy on education envisages development of creativity among the students. It depends on many factors, the role played by the institutional environment in the same cannot be underestimated (Gupta, 1980). Hence it is essential to study these different types of school climate in relation to their effects on the growth and development of creativity of the pupils. The unfolding of one's creative potentiality is essentially related to the nature of medium and if the conditions are adverse, may be shifted stunted or studied (Toynbee, 1951). Again Freeman, Butcher and Christie (1971), observed that nature of relationship between creativity and personality factors life self-concept with institutional environment remains to be firmly established. In view of the importance of

psycho-social environment as a manipulable variable in creative work, development of self-concept and learning, the locus of interest in educational measurement is beginning to shift of late, from measures of the individual to measures of environment (Randhwa and Michayluk, 1975).

Since self-concept is multifaceted, academic self-concept is proved to be more objective measure for the academic purposes than the general self-concept. Therefore, it was intended to study :

- (i) the inter-relationship among the psycho-social characteristics of classroom environment (CE), Creativity (CR) Academic Self-concept (ASC) and Academic Achievement (AA) of the secondary school students.
- (ii) relationship of classroom environment variables and creative abilities as predictors and subjectwise academic self-concepts and academic achievements as criterions. The classroom environment variables are personalization, participation, independence, investigation and differentiation. The creative abilities under consideration are fluency, flexibility and originality.

Tools used :

- (i) Acharyulu's Think Creatively (ATC) a standardised verbal test was used for assessing the creative abilities.
- (ii) Individualized Classroom Environment Questionnaire (ICEQ) consisting of five scales was used to measure student perception of actual classroom environment.
- (iii) Academic self-concept scale (ASCS)—A scale developed and standardised by the investigator was used to measure academic self-concept in five school subjects, (English, M. I. L., Mathematics, General Science and Social Studies).
- (iv) Academic Achievement (AA)—The marks secured by the students in the last two consecutive examinations taken by them in different five school subjects were collected from the school records.

Sample : The sample of the study consisted of 636 class IX students randomly drawn from 15 schools (8 urban and 7 rural) in Orissa comprising 379 boys and 257 girls.

RESULTS AND DISCUSSION

The test scores alongwith personal data of the students were tabulated to study the mentioned objectives.

Objective I : In order to study this objective, pearsons product-moment coefficient of correlation was used and the 'r' values were tested for significance.

Table-I : Coefficient of correlation among the measures of CE, CR, ASC and AA.

Measures	Urban (N=309)	Rural (N=327)	Total (N=636)
CE and CR	0.02	0.09	0.08
CE and ASC	0.23***	0.26***	0.23***
CE and AA	0.13*	0.22***	0.14***
CR and ASC	0.24***	0.21***	0.23***
CR and AA	0.40***	0.38***	0.40***
ASC and AA	0.41***	0.51***	0.455***

* $p < 0.05$ *** $p < 0.001$

It is found from the table that the CE score of the students correlate positively and significantly with the ASC and AA for the urban, rural and total sample. Further, CR scores also correlate positively and significantly ($p < 0.001$) with the ASC and AA. Again, ASC and AA scores are found to be correlated significantly.

In interesting result to note that the CE scores of the students did not correlate with their CR for any group. This infers that CE and CR are two uncorrelated variables and are independent to each other. Moreover, these two variables are significantly correlated with ABC and AA. The reason may be that the classroom environment in our schools emphasize mostly convergent thinking and rote memorisation. Moreover, Interactions and dealings are done with the students in group situations with metatype proceedings which does not develops creative ability. Individuality and divergent production has little or no place in our schools.

Objective II : To study the objective, canonical correlational analysis procedure was followed using CE and CR components as predictor variables (8 components); ASC and AA components were used as criterion variables. (10 components).

In this analysis, eight canonical solutions were obtained as given in Table-2.

Table-2 : Canonical solutions for the total sample ($N=636$).

Solution	Canonical correlation RC	Approx. F.	df	p
1	0.48	3.83	80	0.001***
2	0.29	2.10	63	0.001***
3	0.22	1.54	48	0.009**
4	0.18	1.26	35	0.141
5	0.12	0.93	24	0.563
6	0.10	0.88	15	0.582
7	0.86	0.81	8	0.592
8	0.53	0.59	3	0.621

** $p < 0.01$

*** $p < 0.001$

It indicates from the table that first three solutions for the given RCS are significant and hence the sets of structure coefficients are found out and analysed in the following tables :

Table-3 : Structure coefficients for the canonical solutions.

	First Solution	Second Solution	Third Solution
Predictor Variables (CE and CR)			
Personalization	0.25	0.47	0.15
Participation	0.41	0.50	0.15
Independence	0.00	-0.15	-0.01

Contd...

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Investigation	0.30	0.60	-0.39
Differentiation	-0.17	0.35	0.60
Fluency	0.88	-0.26	0.07
Flexibility	0.76	-0.06	0.32
Originality	0.72	-0.37	-0.12
Criterion Variables (ASC and AA)			
AA in English	0.75	0.09	0.56
Oriya	0.82	-0.29	0.06
Gen. Sc.	0.83	-0.32	0.10
Mathematics	0.77	-0.29	0.21
Soc. Studies	0.86	-0.25	0.07
ASC in English	0.57	0.67	0.05
Oriya	0.64	0.68	-0.07
Gen. Sc.	0.66	0.57	0.12
Mathematics	0.63	0.57	0.16
Social Studies	0.69	0.63	-0.19

In the above table it is found that the creativity components i.e. fluency, flexibility and originality are high level predictors in the first solution for all the AA and ASC components (coefficients 0.50 or more). Moreover, achievement components are comparably better predicted than the self-concept components. In the second solution, 'participation' and 'investigation' are the predictors for all ASC components. The third solution shows 'differentiation' is the predictor for achievement in English.

CONCLUSION

It is concluded that the creative ability of students can predict their academic self concept in all the school subjects in a better way than their achievements. Particularly, participation (extent of participation of the pupils in teaching, learning process) and

investigation (emphasis in inquiry and problem solving), are the chief predictors of Academic Self-concept. Differentiation (selective treatment on the basis of ability of the pupils) is a good predictor of achievement in English.

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A Study of Some Personality Characteristics of Repressers and Sensitisers

Satish Kumar

Lecturer in Psychology, L.P. Shahi College
(Bihar University), Muzaffarpur (Bihar)

Two hundred urban-based male undergraduates (age-range : 18-21 years) were administered Repression-Sensitization Scale, F-Scale and EPI to assess personality differences in repressers and sensitizers. The findings show that the repressers scored significantly less on authoritarianism and neuroticism, and higher on extraversion dimensions of personality, supporting our hypotheses formulated in the present study.

INTRODUCTION

A large number of comparative studies relating to personality of the repressers and the sensitizers have figured in psychological literatures. The findings often reveal that the repressers show predominantly avoiding behaviour (Byrne, 1964) and seem more organized and problem solving oriented (Joy, 1963). They worry less and have greater ego-strength and 'nay-saying' tendency. On the other hand, the sensitizers show predominantly approach mechanisms (Byrne, 1964), a great deal of anxiety (Gordon, 1959), pessimism and disorganization (Joy, 1963). They are 'yes-sayers'. "Also, repressers may view unpleasant stimuli for longer periods than sensitizers because they can avoid, in terms of subjective experiences, the anxiety evoked by the stimuli" (Wagstaff, 1977). Although heterogeneous research data have accumulated around this problem in Western society, there seems a dearth of research investigations exploring the personality patterns of the repressers and the sensitizers in Indian cross-cultural context. However, Prasad (1967) has observed that the repressers score significantly higher on ego-strength and extraversion and lower on authoritarianism and neuroticism dimensions than the sensitizers.

The present study aims to explore the role of personality factors, namely, authoritarianism, neuroticism and extraversion in repression-sensitization. The following hypotheses have been formulated for empirical verification :

- (i) The sensitizers would score significantly higher on authoritarianism than the repressers.
- (ii) The sensitizers would score significantly higher on neuroticism than the repressers.
- (iii) The repressers would score significantly higher on extraversion than the sensitizers.

METHOD

Sample : The sample comprised 200 urban-based male undergraduates of Bihar University, Muzaffarpur (Bihar). The subjects ranged in age from 18 to 21 years.

Tests used : (i) For the measurement of Repression-Sensitization Prasad's (1977) R-S Scale, which is an adaptation of the Byrne *et.al.*, (1963) Scale, was used.

(ii) For the measurement of Authoritarianism Prasad's (1967) adaptation of the California F-Scale was used.

(iii) For the measurement of Neuroticism and Extraversion dimensions of personality the EPI (Eysenck, 1964) was used.

Procedure : The data were collected in small groups of 10 to 20 subjects in their class-rooms, extending over a period of two sessions. A gap of one day was allowed between the two sessions. Standardized printed instructions accompanied all the tests.

The criterion groups of the repressers (low scorers on R-S Scale) and the sensitizers (high scorers on R-S Scale) were formed by dichotomizing the scores at the median ($Mdn=52.84$). The data were analysed by the application of *t*-test.

RESULTS AND DISCUSSION

The findings as summarized in Table-1 revealed that the repressers scored significantly less on authoritarianism ($t=3.02$, $df=198$, $p<.01$) and neuroticism ($t=3.45$, $df=198$, $p<.01$) dimensions than the sensitizers. Contrary to this, the repressers scored significantly higher on extraversion ($t=2.46$, $df=198$, $p<.05$) dimension than the sensitizers. Thus it shows that authoritarianism, neuroticism and extraversion contribute substantially to discriminate the two criterion groups, namely, the repressers and the sensitizers.

Table-1 : Comparison of Repressors and Sensitizers in terms of their mean scores on personality factors.

Variable	Group	N	Mean	SD	t-value (df=198)
Authoritarianism	Repressors	100	149.84	21.20	
	Sensitizers	100	158.34	18.45	3.02*
Neuroticism	Repressors	100	6.80	4.44	
	Sensitizers	100	8.94	4.26	3.34*
Extraversion	Repressors	100	11.52	3.55	
	Sensitizers	100	10.46	3.18	2.46**

* $p < .01$ ** $p < .05$

The results of the present study lend support to our hypotheses and corroborate to a large number of studies carried out in Western and Indian societies. So far as the impact of authoritarianism on repression-sensitization is concerned, Byrne (1961) has reported a significant negative correlation between the two variables. A few investigators have observed that the sensitizers obtain significantly higher mean F-scale scores than the repressors (Byrne et al., 1966; Prasad, 1967).

As expected, sensitizers scored significantly higher on the neuroticism scale than the repressors. In Western society, it has been reported that the sensitizers are more predominant in populations of patients receiving psychiatric care (Feder, 1967; Tempone and Lamb, 1967) and they are more neurotic and emotionally maladjusted (Joy, 1963) than the repressors. The similar observation has been made by Prasad (1967) in Indian context. A perusal of Table-1 also shows that the repressors are more extraverted than the sensitizers. As an explanation of this finding, it can be said that since anxiety bears positive association with neuroticism (De and Singh, 1972; Singh, 1972; Krishna, 1970, 1987) and sensitizers are high anxious persons (Joy, 1963), they find difficulties to cope with the conflicting the threatening situations of life. However, the findings of the present study cannot be generalized due to paucity of data and inherent limitation of questionnaire

method as used in the present study. Thus more and more systematic studies on macro data across cultures are needed before drawing any tangible conclusion.

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Classroom Seating Position in Relation to Self Disclosure and Approval Motive

Ramji Srivastava¹, Bina Srivastava², D. S. Srivastava³, & A. P. Pandey⁴

The present study was conducted to investigate the impact of self-disclosure and approval motive on classroom seating positions. The sample comprised of 180 undergraduates between 16 to 19 years of age. Sinha's Self Disclosure Inventory and Tripathi & Tripathi's Approval Motive Scales were administered over them. The results indicate beyond any doubt that respondents of high approval and high self disclosure have preferred to occupy front seats than rear seats. Calculated chi-square values for both the variables-approval motive and self disclosure were found statistically significant.

INTRODUCTION

Since a few decades social scientists and educators have started taking interest on the impact of classroom environment on learning and classroom behaviour. Traditionally, researchers focused on analyzing this environment in terms of social, organizational and task centered variables, and, not in terms of physical variables (Weinstein 1979). Recent studies have now shifted their focus to physical variables, such as lighting, noise, classroom size, shape and other physical variables such as classroom seating locations and its possible effects on human behaviour. This issue is broadly related to the psychological variables in general and educational variables in specific. Most researches have emphasized on this common belief that personality variables such as self esteem, achievement motivation, tendency to verbalize and possibly intelligence affects seating location choice

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1. PG. Deptt. of Psychology, Shibli National College, Azamgarh, 276 001.
 2. Deptt. of Teacher Education, S. D. J. PG. College, Chandesbwar, Azamgarh.
 3. PG. Deptt. of Teacher Education. PG. College, Atarra, Banda.
 4. PG. Deptt. of Psychology, PG. College, Ghazipur.

Correspondence regarding this article should be addressed to Dr. Ramji Srivastava.

(Sommer 1967; Walberg 1969; Schwebel & Cherlin 1972; Koneya 1976; Dykman & Reiss 1979; Weinstein 1979; MacPherson 1984). On the other hand other researchers share this belief that seating location may also influence achievement and classroom experience. In a number of studies, seating location has been shown to affect course grades as well as certain behavioural and attitudinal variables (Weinstein 1979; Holahan 1982; Knowles 1982; Levine et.al. 1982; Stires 1982). While reviewing the physical environment on education, Weinstein (1979) emphasized that a front seat facilitates achievement, positive attitudes and participation. Kelley (1977) also supported the hypothesis that student achievement was directly related to seating location in the classroom. In a likewise fashion, Stires (1982) also supported environmental hypothesis and found strong effects of seating position on attendance, grades, attitude towards the course etc. On the basis of review on this topic, Moore & Glynn (1984) concluded that it is now clear that physical location of the pupils within a classroom can significantly affect both their behaviour and academic achievement levels. Sommer and his colleagues (Sommer & Ross 1958; Sommer 1961, 1967, 1969) have found that students sitting towards the front and centre participates most. Participation have been found to decrease as one moves back or to the sides. Becker et.al. (1973) found that students who choose to sit in the front rated their teacher more favourably and their attitudes are more similar to their teacher than students who choose to sit in the back. Kinarthy (1975) observed that students in the front and centre communicated more with the teacher, and were rated more attentive, most liked and more intelligent by their teacher as opposed to in the back. Koneya (1976) observed that the seat location had an effect on classroom verbalization. But Millard & Stimpson (1980), Buckalew et.al. (1986), and Wulf (1977) did not find such an effect. Thus, classroom seating location does have a fairly robust influence on behavioural variables. In view of the psychological and educational implications of classroom seating positions, the present study was designed.

Self disclosure and approval motives are personality variables and are a must for healthy personality. "Self disclosure is the act of revealing personal information to others" (Jourard 1959, 1971). Whereas approval motive refers the individual need to gain acceptance, to obtain dependency, gratification, and to achieve recognition and or status by engaging in approval seeking behaviours in particular situations through positive self presentation and denial of inadequacies. Approval motive is an associative motive plays an important role in the formation of social relationship. Differences among individuals in respect of self disclosure and approval motive have great impact upon the style of life, belief system, values, instructions, attitudes and it also affects the treatment which an individual receives from others. In view of the important roles played by self disclosure and approval motive in the style of life and belief systems, it was decided to investigate classroom seating position in relation to self disclosure and approval motive. It was hypothesized that self disclosure and approval motive may influence the preferences of

seating positions in the classrooms. Review of studies show that classroom seating position, self disclosure and approval motive have not been explored. There seems to be a challenge in the studies. The present study is an attempt to fill up the gaps in the studies.

METHOD

Sample : The sample comprised of 180 male and female students of undergraduate classes between 16 to 19 years of age. The mean age of the sample was 17.5.

Tools : 1. Tripathi & Tripathi's Approval Motive Scale

2. Sinha's Self Disclosure Inventory.

Procedure : Firstly, seating positions—front, middle and rear ones were determined. First and second rows were taken as front seats, last two rows as rear seats, and the two rows falling in between treated as middle seats. Tripathi & Tripathi's Approval Motive Scale and Sinha's Self Disclosure Inventory were administered over the respondents occupied front, middle and rear seats in the classrooms.

RESULTS AND DISCUSSION

Table showing number of respondents in different cells.

Seating positions	Approval Motive				Self disclosure			
	High	Average	Low	Total	High	Average	Low	Total
Front	30	19	11	60	36	16	8	60
Middle	23	24	13	60	23	17	20	60
Rear	13	14	33	60	15	14	31	60
Total	66	57	57	180	74	47	59	180

$$\chi^2=24.8$$

$$df=4 \quad .01$$

$$\chi^2=22.86$$

$$df=4 \quad .01$$

A glance of the table indicate very clearly that respondent were placed in different cells on the basis of their self disclosure, approval motive, and, classroom seating positions. The figures as given in different cells indicate the number of respondents.

The back table reveals that students sitting in the front row scored significantly higher marks in the areas of self disclosure and approval motive. Calculated χ^2 values were found statistically significant at .01 level of significance. It seems that amount of self disclosure and approval motive determine the choice of students in occupying front, middle and rear seats in the classrooms.

Present study supports the finding of Sommer (1967), Walberg (1969), Schwebel & Cherlin (1972), Koneya (1976), Dykman & Reiss (1979), Weinstein (1979), MacPherson (1984). It contradicts the findings of Millard & Stimpson (1980) and Wulf (1977) where no significant effect of classroom seating position was observed.

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Purchasing Behaviour of Refrigerator Buyers : A Case Study of Semi-Urban City

Anand Sharma

Department of Management Kuruk Shetra University
Kuruk Shetra 132119

INTRODUCTION

The intrinsic nature of modern marketing concept is that all the elements of business should be geared towards the satisfaction of consumers, which serve as a target group for manufacturers, wholesalers and retailers for organising production and marketing operations. Thus the entire production, marketing and distribution activities depends on consumers' choices and needs.

The study of consumer behaviour helps in improving the skills of managers in identification of market opportunities and segmenting the market meaningfully. In a developing country like India, the choice of consumer is governed by several factors, such as, Govt. regulations, bureaucratic machinery, rising prices, artificial scarcities of goods by hoarding and blackmarketing etc. However Refrigerator market in India is not greatly affected by all these factors. With the advent of green revolution, rural development (electrification) and other socio-economic measures initiated by the Indian Govt. for the well being of masses, the demand for refrigerator from rural sector is bound to go up considerably. Thus, the present study of consumers behaviour of refrigerator and factors affecting the purchase decision was undertaken in Kurukshetra market—a semi urban city, with the following objectives :

(i) To observe the buying behaviour of refrigerator users. (ii) To analyse the factors that are kept in mind while purchasing a particular brand of refrigerator. (iii) To find out the differences in the behaviour of consumers from different income groups. (iv) To examine the post purchase reaction of the users.

Research Methodology—Kurukshetra is a religious centre and has a population of 50,000 households. Since the majority of population of Kurukshetra city was educated, it was assumed that more than 50% of the total population used refrigerator in their houses. Keeping in view the above fact it was considered to make an attempt to analyse the buying behaviour of refrigerator users of the service class at Kurukshetra for the first

time. The total service class population has been divided into four income groups, i.e., A—below Rs. 1500 P.M., B— Rs. 1501 to Rs. 2500 P. M., C— Rs. 2501 to Rs. 3500 P. M. D—3501 and above P. M. All the groups have been represented in a sample of 200 employees. Stratified random sampling method was used to collect the data. A suitable questionnaire was designed to collect information relevant for this study.

RESULTS AND TESTING

The data in Table—1 revealed that eight brands of refrigerators viz. Allwyn, Godrej, Gem, Kelvinator, Leonard, Voltas, Zenith and MEC, were known to respondents. However, Kelvinator was found to be most important brand with 37% of the total respondents owning it followed by Allwyn (23%), Godrej (23%), Other brands like Leonard, Gem, Zenith were possessed by 6%, 5% and 4% respondents, respectively. Whereas, MEC and Voltas were possessed by only 2% of the total respondents.

Table 1—Observed values of consumers with percentages having different brands of refrigerators, such as I—Allwyn, II—Godrej, III—Gem, IV—Kelvinator, V—Leonard, VI—Voltas, VII—Zenith and VIII—Others (MEC) from n-200 respondents.

Income Groups	Brands of Refrigerator							
	I	II	III	IV	V	VI	VII	VIII
Group—A (upto Rs. 1500 P.M.)	10 21.7%	14 30.4%	— —	16 21.6%	— —	— —	— —	— —
Group B (Rs. 1501- Rs. 2500 P. M.)	16 34.8%	6 13.1%	6 60%	28 37.8%	— —	— —	4 50%	— —
Group—C (Rs. 2501- (Rs. 3500 P. M.)	14 30.4%	20 43.4%	4 40%	22 29.8%	12 100%	2 100%	4 50%	2 100%
Group—D (Rs. 3500 P.M.)	6 13.1%	6 13.1%	— —	8 10.8%	— —	— —	— —	— —
Total	46 23%	46 23%	10 5%	74 37%	12 6%	2 1%	8 4%	2 1%

All the respondents were having white colour single door refrigerator. Table 2 further indicated that people in income group A, B and C purchased 165 Lts capacity refrigerator while the persons in income group D preferred the larger size (286 Lts) of refrigerator. The common size of refrigerator was 165 Lts which was owned by majority of the respondents. However, Table-2 showed that size of the refrigerator possessed by the respondents was income dependent. This was also proved by the significant chi-square (X^2).

Table—2 : Comparison of the capacity of refrigerator owned by the consumer ($n=200$) of four income Groups. Values given in the parenthesis are the expected values in the chi-square test

Income Groups	Capacity of refrigerator	
	165 Lts.	286 Lts.
A	40	—
	20.6%	—
	(38.8)	(1.2)
B	60	—
	30.9%	—
	(38.2)	(1.8)
C	78	2
	40.2%	33.3%
	(77.6)	(2.4)
D	16	4
	8.3%	66.7%
	(19.4)	(.6)
Total	194	6
	97%	3%

Calculated value of Chi-Square (X^2)—22.939, Significant at .01 level, df.—3.

Barring a few respondents (belonging to income groups A and B) who got refrigerator as gift, the majoring of respondents purchased it on their own (Table-3). Significant

chi-square (X^2) also showed the relationship between income of the respondents and mode of its procurement.

Table—3 : Mode of procurement of refrigerator by the respondents ($n=200$).
Values given in parenthesis are the expected values in the chi-square test.

Income Groups	Method of Procurement	
	Through personal purchase	Received as gift
A	34 17.9% (38)	6 60% (2)
B	56 29.5% (57)	4 40% (3)
C	80 42.1% (76)	— — (4)
D	20 10.5% (19)	— — (1)
Total	190 95%	10 5%

Calculated value of chi-square (X^2)—14.032, significant at .01 level, $df=3$.

A number of respondents belonging to income groups A (28.3%) and B (32.6%) purchased the refrigerator on off-season discount along with other incentives (such as free delivery, after sale service etc). The calculated values of chi-square (X^2) also showed the significant relationship between the income of respondents and discount availed. The collected data further revealed that the refrigerator was bought from the particular dealer by the respondents either through personal contacts or because the dealer was only authorised dealer.

Table—4 : Number of respondents ($n=200$) who purchased the refrigerator on off season discount values given in parenthesis are the expected value of chi-square test.

Income Groups	Season of Purchase		
	Winter (off season Purchase	Summer	Read as gift
A	26 28.3% (18.4)	8 8.2% (19.6)	6 60% (2)
B	30 32.6% (27.6)	26 26.5% (29.4)	4 40% (3)
C	30 32.6% (36.8)	50 51.02% (39.2)	— — (4)
D	6 6.5% (9.2)	14 14.28% (9.8)	— — (1)
Total	92 46%	98 49%	10 5%

Calculated values of chi-square (X^2)—31.084 Significant at .01 level, $df=6$

The analysis of the questionnaire indicated that family members were the main motivating force for its purchase in the majority of cases. It was also noticed that advertisement played a significant role in the selection of the different brands of refrigerator (Table—5). The chi-square also proves this relationship.

Table 5—Source of information about the brand of refrigerator (n—200). Value given in parenthesis are expected value in chi-square test.

Income Groups	Source		
	Ads. in news paper, T. V. Radio magazine etc.	Relatives and Friends	Gift
A	18 15.65% (23)	16 20.33 (15)	6 60% (2)

B	32 27.83% (34.5)	24 32% (32.5)	4 40% (3)
C	51 44.35% (46)	29 38.67% (30)	— — (1)
D	14 12.17% (11.5)	6 8% (7.5)	— — (1)
Total	115 57.5%	75 37.5%	10 5%

Calculated value of chi-square (X^2)—16.187 significant at .05 level, $df = 6$

It was also interesting to note that the different factors, such as, durability and warranty (50% of the respondents), Price (31% of the respondents), after sale service (17% of the respondents), brand image (14% of the respondents), appearance (11% of the respondents), space (14% of the respondents) and built in stabilizer (6% of the respondents) affected the respondents choice of a particular brand of refrigerator. All the respondents were satisfied with their brand selection and advised other to buy the same.

DISCUSSION

The success of any organisation lies in its ability to create brand loyalists for its brand as it acts as a great insurance and further shields the company from competitive attacks. Data was collected to know the position of different brands of refrigerators in this regard. It is evident from Table 1 that Kelvinator is the star performer distantly followed by Allwyn. Contrary to this Bhawani Prasad and Sita Kumari (1987) reported Allwyn as the most preferred brand among urbanites followed by Godrej. Further, white coloured single door, 165 Lts. Capacity refrigerators were popular among the middle income group respondents. This may be attributed to the low cost and easy availability of such refrigerators. It was of immense importance to explore why a consumer bought a particular brand of refrigerator. Mostly, the perceptions and attitudes one holds towards a brand were influenced by the marketing inputs along with other exogenous variables such as culture, organisations and finances. The perceived image of a brand was the ultimate determinant in making a consumer to hold on to a brand. It was attempted in this study that why a consumer bought a particular brand. Results obtained here showed that the respondents bought a particular brand because they were convinced that its quality, durability and after sale service conditions were better than that of other brands (Kaurshal et al. 1976). Another factor considered was the attractive sale packages like, off season discount, free-

after sale service, guarantee, etc., while very few respondents in the high income groups had stated low price and easy availability as reasons for selecting a brand. Sitambar and Manohar (1980) have also found out the similar results

Respondents purchase decisions for refrigerators were influenced by a vast number of factors which led them to select a particular brand in preference to others (Gupta and Singh). In this study the respondents formed their purchase intentions mainly on the basis of social factors like, family members and neighbours, advertisements and anticipated situational factors such as known income, expected dealer terms, expected product availability and so on (Deolankar, 1985). The implications of this study were clear that respondents were fairly brand conscious and effective branding strategy had its role to play. It also appeared that respondents were going by a comparative analysis of different brands. The outcome of this comparative analysis was the final decider. However, further research has to be taken up to find out when and why consumers perceive the quality of a brand to be superior to another.

Conclusion—It can be concluded from this study that Kelvinator got more brand loyalty than any other brand of refrigerator. There were more respondents (37%) to give its brand name first preference while purchasing it, Allwyn (23%) and Godrej (23%) come next in this category. The survey also revealed that most of the respondents owned or preferred 165 litres capacity. White colour was purchased by most of the respondents in the middle income group. By and large, respondents in the middle income group A (28.3%) and B (32.6%) purchased their refrigerators during incentive periods. With regard to decision-making though relatives and friends are more or less equally involved, the influence in majority of the cases are the relatives. Advertisements also played a significant role in decision-making.

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Assesment of a group Structure Following Three Sociometric Methods

Girish Chandra Mishra

Panchayat College, Bargarh, Sambal Pur-768028

Intra-group structure of 20; 7th grade children was assessed following positive, negative and rating-scale sociometric methods. Results revealed the rating scale method as an alternative to positive and negative sociometric methods and helpful particularly for the identification of lowly-accepted persons in the group.

Sociometry is a technique for evaluating the extent to which pupils are accepted by their peers and for determining the internal structure of the group (Moreno, 1934). The peer nomination sociometry has been used in studies on "children's peer relations" (Gronlund, 1959; Hart up, Glazer, & Charlesworth, 1967).

Moreno (1934) favoured the use of positive sociometric criteria (e.g., name three classmates with whom you like to play). The peer nomination technique has also been used with negative criteria (e.g., name three classmates with whom you donot like to play). However, the negative sociometric questions may not be used because of the ethical problems relating to such questions. It is a common fact that many people of all ages resist making derogatory or even mildly negative statements about their fellows.

Originally, the positive and negative choice sociometrics were thought to be unidimensional that low scores in one meant high scores on the other. However, research has consistently found this not to be the case. Positive and negative sociometric criteria provide different types of informations and identify different types of children (Hart up, Glazer, & Charlesworth, 1967; Moore, & updegraff, 1964). The authors suggested that in order to differentiate between different sub-groups of children at the lower continuum both positive and negative sociometric nominations may be useful.

To avoid the controversies with regard to the use of negative sociometric criterion, the roster and rating scale sociometric questionnaire has been developed (Hymel & Asher, 1977). Some major advantages of rating scale method are : (a) it does not force children to choose peer like negative criterion, (b) each child is rated by all his/her peers.

The rating scale may, therefore, provide an alternative technique to positive and negative nomination sociometrics. The present study was designed to see the structure of a group and to know if the rating scale sociometry is an effective method to know group structure and popularity of each individual in the group in the comparison to the positive and the negative sociometry methods.

METHOD

Subjects—Twenty 7th grade children (12 boys and 8 girls) of Chintamani Bidyapitha, Kamaladiha, Cuttack in the State of Orissa.

Procedure—Subjects were given the positive, the negative peer nomination questions and a rating scale sociometric questionnaire in three different occasions in three consecutive days. In positive and negative peer nomination sociometry, they were given the lists of the names of all their classmates in alphabetical orders in two separate settings. Subjects were asked to nominate the names of three of their classmates with whom they wanted to play or did not want to play in positive and negative nominations, respectively. In play rating scale questionnaire, they were requested to rate other children's relative position of their likingness to play with following a five point scale, which varied from highest liking to lowest liking.

RESULTS AND DISCUSSION

The analyses, with the help of matrix table and sociogram, it was found that the group was having two stars. Both of them were girls and were acting with each other co-operatively. There were three mutual choices between the boys and girls. One person was found to be a rejectee. No person was found to be a neglectee or isolate. There were several sub-groups within the group. On the whole, the group was found to be a scattered one. But the analyses with the help of play-rating scale scores, revealed some other results. The results were refined further and only one person was identified as a star. Five persons secured lower than the expected score of 3.00 in the rating scale. Four of them were regarded as isolates. The rest one person was remained as rejectee, following the negative nominations. Two persons who were lowly accepted in the positive nominations, and was also rejected in the negative nominations, found to have secured more than the expected score in the rating scale. Correlational analyses were performed to learn how the various measures inter-related. The average play-rating scale sociometric was found to be significantly related to the positive nominations, $r(20) = .73$, ($P < .01$) and significantly and negatively related to the negative peer nominations, $r(20) = -.91$, ($P < .01$). The positive and

negative peer nominations were found to be significantly and negatively related with each other, $r(20) = -.47$, ($P < .05$).

In the current study, it was thus found that in order to get a clear picture about the social structure of a group, use of multiple sociometric measures is necessary, but not essential. However, in order to identify the isolates or the lowly accepted persons, the rating scale sociometric technique is a more favourable method than the positive and negative nomination sociometric methods. The correlational analyses further suggested that the rating scale sociometric method provides information similar to that obtained by the positive and negative nomination sociometric methods without forcing children to choose peers like negative criterion. Therefore, if it is not desired to use the negative nomination sociometry for ethical reasons, the rating scale questionnaire method is an alternative. Such results corroborate with Hymel and Asher's (1977) observations.

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Religiosity and Dogmatism in Working and Nonworking Women : A Socio-demographic Study

Dr. Shivakshy Khanna

Department of Psychology

Himachal Pradesh University Shimla-171 005

The present investigation attempt to study the two personality variables viz., religiosity and dogmatism in working/nonworking women of Jalandhar and Shimla. 406 women are drawn from the urban localities of Jalandhar and Shimla, 220 of them working and 186 nonworking are investigated through two tests, namely, Religiosity Inventory and Dogmatism Scale. The tests reveal that 1. Religiosity is significantly more in both working and nonworking women of Shimla. 2. Dogmatism is significantly more in only nonworking women of Simla as compared to their Jalandhar counterparts. The findings are discussed in the light of other socio demographic variables of marital status and religion.

INTRODUCTION

Mercy, kindness, tolerance, forgiveness, peaceful co-existence and hope are one of the few virtues propounded by religion which have a tremendous appeal for women. But morbid or excessive concern with religion in its formal expressions, or the practice of a merely superficial religion is better known as religiosity (Longman's English Larousse, 1968). According to Parkash (1987) women ease their tensions, anxieties, confusion and frustration by engaging in different kinds of religious behaviour and activities and also by indulging in various rituals, magic, sacrifices, ceremonies, prayers and fasts. But whatever religion and rituals may have to offer to help reduce tensions, sufferings and disappointments, excessive indulgence in it becomes counter-productive and may take the form of utter morbidity. Women in their effort to prove their worth to themselves and to others resort to various forms of worship, feign untinted devotion and only end in delving into superficial religious activities. But for true seekers non-dogmatic religion and religiosity

can be an-enriching experience. The fault lies with the interpretation of religious values rather than with religion itself. Everywoman interprets religion according to her own personality needs and her social, cultural and psychological set up. The Indian women are becoming less and less religious so far as the spirit of religion is concerned, although religious rituals and practices still occupy a prominent place in the daily routine of their lives. The customs in India carry religious compulsions behind them, people will beg, borrow or steal to give over a daughter in marriage or to perform the rites of the dead because these customs have religious compulsions behind them.

On examining the Indian culture as seen through Indian Philosophy, mythology, history, folklore, social attitudes, religious practices and the contemporary scene instances are found of the closed and open mind. The closed mind is evidenced by contradictions, isolation of beliefs, accentuation of differences, minimisation of similarities, primitive belief systems, ambivalence, concern with status and power, intolerance, authoritarianism, authority figures and time perspective in the glorification of the past. Even within different religious groups there is and has always been all kinds of discrimination, intolerance and forcible domination. Although Indian culture might be authoritarian it is not totally dogmatic. The Indian people have been open to experience not only of the 'World of Reality', but also of a 'Transcendental Reality, where since long past Indian yogis and rishis have attained the coveted 'Budhattava'. Thus, in India, the open mind is as much a cultural heritage as the closed mind.

In traditional Indian family an individual learns early in life the different positions and status people hold in the family hierarchy. The scriptures advocate that the mother, father and guru should be revered as Gods. She then relates to these positions and roles rather than to individuals. The social constraints on women restricting their public movements and appearance, to a large extent, account for women losing their self-confidence and initiative. The insecurity, helplessness and physical weakness makes them more subservient and socially further dependent. The devotion to husband and respect to elders emerge as cherished values of Indian women today. Women in general are conservative, tradition loving and stand in the way of changing attitudes. In India the most significant development of the Post Independent middle class society has been an increasingly frequent participation of women into work force. But it has been found that this work force participation directly affects religious and dogmatic orientation of women. Women in the full time work force are less religious than those out of it and have a broadly similar religious orientation to males. Work simply makes religion less important and less relevant. Helode (1981) reports nonworking women to be more religious because of need for economic support and independence and according to Rama (1962) nonworking women are more dogmatic and more traditional in their attitudes. For Devaus & Mcallester (1987) the child bearing role and traditional attitudes towards work and its relationships to family values account for the greater religiousness of women. Married subjects are more religious

than the unmarried ones (Guilford & Fruchter, 1978; Helode, 1981) and more dogmatic (Rama, 1962)-

Keeping in view the religious culture of India and a relatively closed cognitive organisation of beliefs and disbeliefs about reality it becomes imperative to study among working and nonworking women the two personality variables that may differ in relation to the sociodemographic variables viz., area-two urban localities one in the plains of Punjab (Jalandhar) and the other in the hills of Himachal Pradesh (Shimla); marital status; and religion.

METHOD

Sample—It was a purposive sample comprising of 220 working women (clerks in banks) and 186 nonworking women staying at home without any employment. 174 of them were selected from Jalandhar and 232 from Shimla. They were matched for age (25-35 years), socio economic status (middle class) and education (matriculation to graduation).

Measures—1. Religiosity Inventory (Ahmed, 1959). 2. Dogmatism Scale (Rokeach, 1960).

Procedure—Working women were contacted in the banks and nonworking women in their homes in Jalandhar and Shimla for the collection of necessary data.

1. Shimla working-married-Hindu women ($N=34$) as compared to their counterparts in Jalandhar [$t(58)=3.50, p<.01$]. 2. Shimla nonworking-unmarried-Hindu women ($N=12$) as compared to their counterparts in Jalandhar [$t(18)=3.90, p<.01$].

Compared to Jalandhar, Shimla is a small town with lesser population (Population, Census, 1981). Surveys in several countries indicate that larger the community the lower is the religious observance (Gorer, 1955, Pin, 1956, Boulard, 1960). Social life in small town like Shimla is confined mostly around temples, gurudwaras and religious festivals. In "This Beautiful India—H. P.", Chib (1977) cites that the people of Himachal Pradesh are deeply religious and have great belief in charms, magic, enchantments, ghosts and evil spirits. Jalparis, Matris (Waterynymphs) Kali, Banshira, Dags etc., are considered most important supernatural spirits in and around Shimla hills.

RESULTS AND DISCUSSION

A comparative study of religiosity and dogmatism in working and nonworking women of Jalandhar and Shimla is given in Table 1 and 2.

TABLE-1 : Analysis of Religiosity in different Studied Groups

		Working Women						Nonworking Women					
		Hindu			Sikh			Hindu			Sikh		
		Jal	Sml	t	Jal	Sml	t	Jal	Sml	t	Jal	Sml	t
N		26	34		62	38		26	20		72	38	
M		90.08	115.10	3.50	91.40	91.79	0.12	92.50	93.50	0.36	103.90	98.80	1.70
SD		8.90	35.33		15.30	16.14		7.60	11.10		17.40	10.10	
N		18	22		14	6		8	12		6	4	
M		104.80	98.00	1.23	89.00	93.00	1.10	83.00	108.42	3.90	108.70	120.00	'U' = 8
SD		13.23	19.90		7.50	19.40		5.80	17.50		15.10	0	p=0.238

* p<0.01

** p<0.05

TABLE—2 : Analysis of Dogmatism in Different Studied Groups

		Working Women						Nonworking Women					
		Hindu			Sikh			Hindu			Sikh		
		Jal	Sml	t	Jal	Sml	t	Jal	Sml	t	Jal	Sml	t
N		26	34		62	38		26	20		72	38	
M		174.79	172.00	0.38	172.30	174.00	0.39	176.40	186.20	1.18	158.30	169.90	2.13
SD		23.98	29.11		22.02	19.11		24.00	31.90		28.98	23.50	
N		18	22		14	6		8	12		6	4	
M		185.80	178.10	0.89	178.80	179.00	0.16	177.80	183.70	2.54	184.30	195.00	U=4
SD		25.10	28.10		5.23	7.80		7.60	2.43		13.21	2.00	p=0.057

* <0.01

** p<0.05

Table 1 shows that religiosity is significantly more in

In the hills due to the vagaries and harshness of life and given the rich traditional culture of myths and the supernatural the general reaction of local women is to fall back on religion. The working-married-Hindu women of Shimla whenever have little leisure time from work and household responsibilities, they mostly spend it in praying at home or going out with children to nearby temples. There are few other social activities in this town in which mothers and children together can take part and which are not beyond the means of the women of the middle class families. Nonworking-unmarried-Hindu-women in Shimla have more time in hand, as they do not have to report to paid work and have no household responsibility such as child care due to their single status. They go to religious places that are near the main shopping centre in their free time.

Table 2 reveals that dogmatism is significantly more in :

1. Shimla non-working-married-Sikh women ($N=38$) as compared to their Jalandhar counterparts [$t(108)=2.13, p<0.05$].
2. Shimla nonworking-unmarried-Hindu women ($N=12$) as compared to their Jalandhar counterparts [$t(18)=2.54, p<0.05$].
3. Shimla nonworking-unmarried-Sikh ($N=4$) as compared to their Jalandhar counterparts ($'U'=4, p<0.05$). Mann-Whitney 'U' test is applied in this case because of small sample.

In Shimla nonworking-Sikh women whether they are married or not are found to be more dogmatic than their Jalandhar Counterparts. These Sikh women are housebound and are confined to their homes with household responsibilities. Lack of paid work makes them dependent on other family members and they are forced to conform to the norms. Moreover, there are few Sikh families in Shimla they can socialise with and thus do not have a broader exposure. These Sikh women of Shimla are a minority group. These women in order to overcome their feelings of alienation are cautious and are uncompromising in regards to new ideas, change, possibilities, and alternatives and generally conform to the traditional feminine roles. Religion of Sikhs is explained in the theory of quest for ego-identity. Erikson (1956) has postulated a need for a clear and satisfactory picture of self; partly based on reactions of others. These Sikh women of Shimla perhaps are more aware of their oppressed socio-cultural situations. Their attitude can be best understood when Hasan (1985) discuss the concept of dogmatism in terms of a cultural approach to history, the belief of dogmatic adherents of religious and political ideologies that one's creed is the best, blaming the outgroup for the rejection of the ideas prescribed for peaceful coexistence.

In Shimla nonworking-unmarried-Hindu women are more closed minded as compared to their counterparts in Jalandhar. Shimla being a small place anything against the traditional values become the talk of the town. Shimla does not promise a greater fulfillment of their needs, aspirations, skills and competence. Being single and without

work they become dependent on their family members and feel a vacuum in their lives with a sense of loss of personal and social identity and worth. Moreover, the new incidence of singleness inhibits recognition of their values as an individual perpetuating negative stereotypes that result in minority status. In a patriarchal society and a town like Shimla women's 'adaptive' behaviour is required to be passive, dependent, powerless, helpless and self-affirmative. She has no choice but to be conservative, less sensitive and less compatible with opposing points of view.

CONCLUSION

1. Religiosity is significantly more in both working and nonworking-Hindu women of Shimla irrespective of their marital status and 2. Dogmatism is significantly more in only nonworking women of Shimla irrespective of their marital status and religion as compared to their Jalandhar counterparts. Thus sociodemographic variables viz., area, marital status and religion are playing significant role in determining religiosity and dogmatism among working and nonworking women.

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Book Review

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INDAN PSYCHOLOGICAL REVIEW

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Intuitive Stage : Nature and it's Importance in Primary Education

Ranjana Vasthava* D. R. Goel*

School of Education, Devi Ahilya Vishwavidyalaya, Indore:

Present paper deals with the understanding of the nature and importance of intuitive stage in primary education. Generally children start their primary education when they have passed first year of intuitive stage (Piaget classified the children of 4 to 7 years under Intuitive stage). So, to match the instruction according to the developmental stage of the child, the teacher should have intense understanding of children's intuitive characteristics i.e., they have their own reasoning with respect to every entity, phenomenon and effect. They build their own theories through imperfect. The abilities of decentration and reversibility are not well developed. Their thinking patterns are influenced by relatively innocent egocentrism. Primary education is the most permanent formative phase. So, the responsibility of the primary school teacher is to help children in conceive the world more meaningfully. The teacher at this level has to be very sensitive to play varied roles, such as, prophylactic, diagnostic and ameliorative. In this direction Piagetian Teaching Model helps teacher in constantly assessing, diagnosing the children through the responses at different phases of the model, which provides the teacher a through view of the child's current stage of the development and growth tendencies. This encounter guides the teacher to use Piagetian Teaching Model for teaching purpose by providing suitable cues to stimulate thinking of the child to higher levels. So, the primary education stage is the stage requiring very careful treatment. The Piagetian Teaching Model definitely contributes to the realisation of the above objective.

INTRODUCTION

As a classroom teacher we often find that, what makes sense to us may not make sense to the children. The world through children's eyes appears quite different than what is appears to us. we also find that a twelve-year old seems more advanced in mental operations than a nine-year old. So, the emerging questions are how children think differently than adults? How the thinking patterns differ with age? What, how in which form and to what extent gets planted in the mind's of children?

Piaget's theory of cognitive development reflects on these questions. He provides us with a useful description of how the minds of children develop. He describes the stages of the development of intelligence from birth to adolescence. Piaget believes that human beings develop increasingly more complex level of thinking in definite stages. Each stage is characterised by the possession of certain concepts or intellectual structures. Thus Piaget classified intellectual development in four stages. According to different age levels and kinds of cognitive structure the stages are as presented through Table 1.

Table—1

Stage	Duration (years)	Thinking
1. Sensory-motor	0-2	Sensory-motor
2. Pre-operational	2-7	
a. Pre-conceptual	2-4	Transductive
b. Intuitive	4-7	Intuitive
3. Concrete Operational	7-11	Inductive
4. Formal Operational	11+	Deductive

The age ranges for each period are the average age at which children generally demonstrate the characteristics of thought of period.

Importance of Intuitive Stage in Primary Education—Generally the child starts his/her primary education around the age of 4 to 5 years. As described earlier that, Piaget classified the child of 4-7 years under the intuitive stage. The intuitive stage of the child's development has a significant importance in the primary education. Very often the primary schools are blamed for not facilitating that knowledge to the children which is basis for their further education. Primary stage is the most permanent formative period. So, it is really a challenging task for the primary schools to design, develop and provide selected matching learning experiences to the children under varied conditions. According to Piaget the main responsibility of the teacher is to diagnose the current stage of child's mental development and offer the child learning activities according to his/her developmental stage. In other words the teacher should provide such type of instruction that

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matches with the child's natural pattern of comprehension. But a teacher can not do it unless he/she has the knowledge about the characteristic features of different developmental stages of the child.

The children of primary-school are intuitive stage. So, to tune the instruction with the child's developmental stage there is a need to equip the primary teacher with the knowledge of child's intuitive characteristics.

Nature of the Intuitive Stage—Piaget adopts the term “intuition” as a metaphore to describe the thinking process of four to seven years olds. At this stage the child appears to have an intuitive grasp of physical and social properties and relationships. He tries to solve problems by elementary intuitive conception of how things work.

At this stage the reasoning starts but it is still imperfect. The child is constantly illusioned by the perceptual appearance of things. The children seems to formulate their own theories. It is reflected through their responses to the following questions :

E : Where is the Moon going ?

C : It is going to meet its mother.

E : Where is the train ?

C : It is asleep being noon

E : (Evening, when the sun disappeared) Why did the sun disappear ?

C : Because it got angry.

E : Where from the rain water comes ?

C : The sparrows took it up.

The child possesses some peculiar characteristics during the intuitive stage, they are :

Centration : In intuitive child there is a tendency to focus on a single variable or dimension and neglect the other important features of the object. The inability of the child to keep in mind more than one relation at a time results in numerous limitations in thinking. For example; when crossing the road a child in this stage focuses on limited variables at a time. (Say, if his mother is on the other side of the road he may focus on mother and not the traffic. or he may focus on the traffic unidimensionally only).

Irreversibility : The intuitive child's thought is irreversible in the sense that the child has an inability to invers the operations or returning to an unchanged point or the original state of the display. In other words it is difficult for the child to go beyond his perceptions and perform displacements on the data in his cognitive domain. In the absence of operational reversibility there is no conservation of quantity in intuitive child.

Egocetrisim : The egocentrism is the characteristic of this phase of development, The child thinks that everyone thinks the same way he does. He thinks that he is quite

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logical and his thinking is right. The child can not reconstruct his own reasoning, or justify his arguments, because he cannot think about them objectively or from other person's point of view. In fact he assumes that all the world shares his thought and owes no explanation.

Another characteristic of egocentric thought is that, they attribute feelings to objects and believe that natural phenomena are made or controlled by men.

Action : The intuitive child tends to operate with concrete things rather with abstract. His representations are much closer to overt actions, in both form and operation.

Understanding of the above characteristics of the intuitive child helps the teacher in evaluation of child's performance in learning situations and also in correct analysis of the child's thinking process. Because the teacher has an understanding that in intuitive stage there are some psychological barriers, such as, centration egocentrism, irreversibility. The teacher may be able to read and examine the students' responses in terms for their developmental levels and react suitably to realise more complex levels of thinking

Knowing that the intuitive child tends to operate with concrete things rather than abstracts, the teacher develops different concepts by providing the child an opportunity to manipulate the concrete things. For example the child can evolve number concept through stones, blocks, beads or other objects which can be manipulated and ordered. By doing so, the teacher creates a facilitating climate so, that students feel free to respond naturally and operate smoothly in their learning environment. But to do it there is a need to discover a suitable strategy which helps the primary school teachers to provide their students such type of instruction that matches with their developmental level and promotes their cognitive abilities.

Importance of Piagetian Technique for Assessing and Fostering Cognitive Development of Intuitive Child : It is a problem before educators that many concepts are not clear to our students and they have surface level knowledge. The main reason of this problem is that teacher take the objectives of teaching to fill up the minds of students with some important facts, principles and rules. They also expect the children that they remember all these. Thus the teachers increase the knowledge only rather than increasing child's cognitive capabilities.

Because the development of mind is different than powering the knowledge. Development of minds means to form it in such a way that it is critical, can verify and not accept everything that are offered, children should use their minds for thinking in a proper way, questioning every stimulus comprehensively. Piagetian Teaching Model is useful for the teachers in constantly assessing the child's thinking process diagnosing by evaluating their responses. Piagetian task have been mostly designed and used for the assessment of the level of intellectual reasoning on a given task. In this model the approach is scientific and suitable for the assessment of child's cognitive

capabilities, because in this model stimulating and free environment is created by the teacher and then the child is exposed to a problematic task. In phase one the student is presented puzzling situation well matched to his developmental stages. In phase two the student's responses are elicited by the teacher through neutral questions. If the child responds then he is asked to justify his response. If the child justifies his response; he is given a counter-suggestion to verify and strengthen his response. If the child responds correctly to the counter-suggestion, he is asked to justify his response. If the child justifies his response to the counter-suggestion, then he is presented a related task. (Phase III) If the child is not in a position to respond at any stage then the experimenter takes the child back to the beginning point or any other suitable point in between. Even then, if a child is not able to respond then he is provided a task of lower difficulty level. The responses given by the child at different phases of the model, reveal the child's thinking process and the ways through which the child arrives at answers. So, in addition to mere marking and score declaration, the Piagetian Teaching Model helps teacher to diagnose the child's cognitive capabilities through the responses. Both wrong and right answers provide useful information about the child's thinking process.

Piagetian Teaching Model can be used both for teaching and assessment. While teaching through Piagetian Teaching Model additional cues are given to facilitate the thinking of the child by meeting gaps in thinking, whereas, while assessing through Piagetian Teaching Model no additional cues are given. The way a teacher implements a task through Piagetian Teaching Model and in what manner he inquires the child and draw the conclusion about the child's intellectual level for a concept is evident through the following task. The following task was implemented on a 4 years, 2 months child.

TASK DISCRIMINATION

Material : Picture cards of : A goat, a sheep, a lamb, a kid, a lion, a tiger and a jaguar cub.

Administration of the task :

(The experimenter shows the child a picture of goat.)

E: What is this ?

C: This is a goat.

E: (By showing a picture of sheep.) What is this ?

C: I don't know ?

E: O. K. (Shows the child both the pictures.) These are same or different animals ? (Puzzling situation)

C: Both are same animals.

E: How do you know that both are same animals ? (Requests for reasoning)

- C : (By indicating the sheep) This is bhedra and (By indicating the goat) this is goat.
- E : What are the similar characteristics in these animals ?
- C : One of them gives milk and other one wool ?
- E : Which one gives milk and which one gives wool ?
- C : (By pointing the sheep) This one gives the wool and (By pointing the goat) this one gives the milk.
- E : Milk and wool are different or they are same ? (Elicits student's response).
- C : They are different things.
- E : You tell me that these animals give different kinds of things, then how do you call them same kind of animals ? (Requests for reasoning)
- C : Even then they are same.
 (The experimenter shows the child a picture of lamb and a picture of kid.)
 (Counter—suggestion)
- E : Can you identify the baby goat and the baby sheep ?
 (The child identifies the lamb as a baby goat and the kid as a baby sheep.)
- E : How do you know that this is (By pointing lamb) baby goat and this is (By pointing kid) baby sheep ?
- C : I just identify them. (Egocentric response)
- E : (Puts the lamb in front of the goat) Is it similar to this one (Goat) ? (Elicits student's response)
- C : This is (Goat) similar to this (Lamb) and this is (Sheep) similar to this (Kid).
- E : How do you say that this (Kid) is similar to this (Sheep) ?
- C : I am just telling this.
- E : But how do you say this ?
- C : I don't know.
 (The experimenter shows the child a picture of a lion and a tiger) (Related task)
- E : Are these animals of same kind ?
- C : Yes, they are same. (Egocentric response)
- E : You mean this (Tiger) is similar to this one (Lion) ?
- C : Yes.
- E : What are their names ?
- C : (Correctly names them by pointing) This is tiger and this is lion.
- E : They have different names then how they are same kind of animals ? (Asks for justification)

C : They are similar.

E : (Shows the child a picture of jaguar cub.) Out of these animals (Tiger and lion) which one has this type of baby ? (Counter—suggestion)

C : None of these animals has such type of baby.

E : How do you know ?

C : I know it already. (Egocentric response)

Interpretation—It is clear from the above illustration that, the child does not have well developed concept of discrimination. He is unable to discriminate the animals of less distinct features. He is able to name correctly the different animals, but unable to explain why they are different. He also knows the characteristics of different animals (Sheep and goat). As he say—"Goat gives milk while sheep gives wool." But he does not differentiate them on these attributes. His discrimination power is not so sharp to identify the elders with their offsprings, it is clear when the child does not correctly identify the offsprings of sheep and goat. But at the end of the experiment the child differentiates the jaguar cub against lion and tiger. The child is able to do it because of a very distinct characteristics of jaguar cub as it has a densely spotted body. Here the child can only identify them but is not able to explain that how they are different ? So the child needs to develop discrimination power in terms of characteristics of entities. The emerging premise here is that while the child is in a position to spot the densely spotted body of jaguar cub, why he does not manifest or may be discriminates them globally and not analytically. May be because the child is not in a position to cognise the different dimensions simultaneously, so he is not in a position to discriminate among the organisms analytically.

At times the child refuses to reason, behaving in such a way that his thinking is super and final and no one should ask him to reason. At this stage the child has limited perspective. Creation of a free interactive environment may help the child in multicentring and having more comprehensive perspective. This way number of tasks can be used for diagnostic purpose, which would guide the teacher to utilise Piagetian Teaching Model for teaching by designing a series of level capatible tasks for planting and enhancing the concepts of the child.

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Education and the Development of National Character in India after Independence

Achut Kumar Singh¹

Red Cross Road, Adampur, Bhagalpur-1

Education of any kind is basic to an all-round development of human personality. It helps in establishing a link between the word inside the individual and the one outside. The primary function of the educational system according to Panunzio (1939)¹ is to transmit a knowledge of the forms and skills society regards as indispensable to its survival and improvement. That system regularizes the knowledge-transmitting activity; inculcates the folkways and the mores; trains the young to fit into the established cultural scheme, aims to aid the individual in the development of personality and aptitudes; and sets forth the broad lines which the society believes must be followed in order to survive and improve. Along with imparting knowledge and skills, education also transmits the particular system of moral, social and cultural values of the group, and thus undertakes the indoctrination of both the rational and the emotional elements which make up the adult individual. Education, understood primarily as the induction of the maturing individual into the life and culture of his people, is the most vital of all institutions and embraces all other institutions (Lowie 1950)². Understood in this sense, education is essential to both the renewal and the growth of human society. In its absence the achievement of man would be limited by the powers and to the experiences of the individual, and what is known as culture could not develop.

1. C. Panunzio : "*Major Social Institutions*," New York, Macmillan 1939. p. 242.
 2. R. H. Lowie : *Social Organization*, London, Routledge, 1950. p. 194, following Count's article in the "*Encyclopaedia of Social Sciences*".
- 1 Red Cross Road, Adampur, Bhagalpur-1

INTRODUCTION

The chief aim of education is thus to furnish the individual with such necessary equipment for living that he may be enabled to reduce to a minimum the operation of those of his personal interests which conflict with the interests of the group or the society, so as to live in harmony with the group life and its ideals, and even to raise high and exalt the social and moral practices and codes which the group considers as conducive to the healthy and proper growth of its members.

Education has two components : a general awareness through formal education and a training in special skills like technical education. Conclusively, education aims at instilling in student new values and encouraging them to imbibe a new life pattern replet with all glories and virtues. It is oriented to build a successful, efficient and accomplished individual for the social, cultural and economic development of the society. The crucial role of education, particularly higher education is to develop an all acting and efficient citizen in particular and to furnish a nation with all the growth and prosperity in general. Hence, it was expected that education would support the development of different characteristics in individual differently.

After independence, our educational system and policies have undergone a variety of changes and modifications in order to make the education apt to the needs and aspirations. of the general masses. But, how far our education and educational system could be able to achieve their mission needs to be evaluated systematically. Hence, the present study was undertaken to evaluate the impact of education on the development of a sound national character in free India wherein studies are almost non-existent.

Education, in this study, was treated as independent variable and defined in terms of formal education. On the other hand, national character, the dependent variable, was measured in terms of different characteristics representing the Indian national character (A 4-point Likert type scale for the measurement of National Character was developed).

In order to trace the impact of education in the building of character, the universe of the investigation. on the basis of educational level, was divided into four discrete groups such as : The illiterate (below middle), the literate (middle to matric). the less educated (matric to graduate), the highly educated (post-graduates, doctors, engineers, etc.). Each group was consisting of 100 subjects.

For the convenience, a cross-sectional design was adopted for the present investigation. In order to obtain a comparative picture of these groups in terms of different characteristics representing Indian national character solely, value of chi-square was computed. In addition, percentage and rank were determined in order to arrange the attributes in a systematic order for each of the groups as well as for the combined group representing general Indians. Besides, attempt was also made to find out the distribution of desirable and undesirable characteristics in each of the groups, as well as in the set of

all the groups expecting that it would reflect a constellation of characteristics embedded in Indians in general.

From the analysis of results it appeared that all the four groups did not differ significantly among them in terms of all the attributes except certain characteristics like feeling of cooperation kindness, self-dependence, gratefulness, status consciousness optimism, peace-lovingness, meanness, vaingloriousness narcissism, reasonability, responsibility, interest in politiking, enthusiasm, active participation in politics and straightforwardness. The result clearly reflected that though education did not exert any influence on the development of different attributes of individuals directly, it fairly contributed to the development of some typical Indian characteristics substantially.

But, mere persual of the above results does not help in finding out a clear and precise idea regarding prominent characteristics prevalent in each of the groups. Hence, an attempt was further made to identify those attributes which received high and low consensus in each of the groups. With this end in view, the highest and the lowest scores on different attributes for each of the four groups were computed such that extremely more pronounced and extremely least existent attributes could be identified. Calculating the scores corresponding to each attributes, 10 attributes from the highest end and 10 from the lowest end were taken and a list of 20 characteristics was prepared for each group.

A sincere glance at the findings reveals that the illiterates generally live on their labour and also they are quite aware of the fact that none is going to provide them better opportunity without any interest. So, they do not inherit any tendency to depend on others. They know to live within their own limitations. Since they are innocent and they do not generally harm others there is no question for them to be a coward. They live bravely on their labour and sweat and they do not waste time in futile activities. They struggle hard from dawn to dusk for their bread and hence they do not indulge in flattery for undue advantages. Their character, it can be proclaimed, is a balanced one with ratio of desirable attributes 3 : 2, i.e., 60% to 40%.

The character pattern of the literates is relatively superior. They possess 70% desirable characteristics and only 30% undesirable ones. They possess self-dignity, self-dependence, peace-lovingness, enthusiasm, courage, reasonability and kindness along with nepotism and extravagance in social festivals. Simplicity, self-dignity, sincerity, enthusiasm and courage are also some of the desirable characteristics of the less educated. These people are also equipped with intellectual foresight. At the same time, they are practically materialistic and hence they like to be result-oriented. They are not emotional. They like to go after wealth and prosperity though they are lazy and luxurious by nature.

The highly educated people, the elite of our society, are traditional, enthusiastic, dutiful, reasonable, sincere and have a pronounced capacity of determination. It can be accepted that education provides foresight and an ability of determination by growing

utmost confidence in oneself Well-educated individuals possess well-ordered mind and their dutifulness and responsibility remain unquestionable. Lack of the feeling of altruism in the highly educated individuals is a matter of deep concern because it shows a drift from Indianism, Indian culture and Indian dignity. The character pattern of general Indians is fairly notable. They are peace-loving, dutiful, self-dependent, reasonable and sincere. They are familiar with the value of independence and self-dignity and possess courage and enthusiasm to fight and succeed. Similarly, they know the art to enjoy life with equality, fraternity and harmony, albeit they have to spend extravagantly on social festivals. No doubt, they have learnt to practise nepotism but they do not forget kindness and reasonability to see for the cause of others. They are neither cruel nor cowards. They have forgotten to be meanminded and prejudiced. They have been trying to get rid of flattery and hypocrisy. This shows Indians in general cannot be rated inferior to others in character pattern.

Thus the present study has revealed a lot of significant facts as to the impact of education on the development of national character. But no study is complete in itself. There are many things which may be taken into account in future research in order to understand the characteristics of an Indian from an elaborate angle.

Economic status plays sufficiently influence role in character-building because living standard of people fairly modifies their attitudes and behaviour pattern. In the present work economic condition was not taken into consideration in the study of character build-up.

Castes system in our country, especially in Bihar, also contributes to character-building in a significant manner. It is a general observation that character pattern varies from caste to caste, to a considerable extent. Thus caste may also be one of the potent variable for consideration in future research and it is hoped, it would add to a new dimension to our scientific understanding of an Indian.

Further this investigation restricted itself to Hindus only, Other communities could not be taken within the area of investigation with the logic that sizable population of India is Hindu. This may pose a problem in generalising the findings of this study. But other previous studies also suffer from same sort of limitation. They have also solely concentrated on Hindus in describing Indian national character. Whatever be the position of researches on Indian national character, it is almost apparent from common observation as also of the empirical findings that there are different cultures and sub-cultures in India, albeit to an extent they form a unique contour of unity. This, in studying Indian national character cultural variations need to be taken in to account.

Characteristics and behaviour of the villagers distinctly differ from those of the city dwellers. But this factor could not be made a variable in the study of character in the present investigation. Hence, the finding of the study may not be generalised to a general

Indian population. Thus residence also needs to be focussed upon to learn about the Indians. Really many doors are opened for further researches in this regard.

It is an open fact that under the limitations of ability, time, financial constraints associated with other bindings of life and profession a social scientist is compelled to formulate a strict bunch of norms to follow. However, despite all limitations and shortcomings the present piece of work, it is hoped, has projected a new light on Indian personality. The study, of course, has presented a brighter face of Indian national character. It has washed away the turbidity of negativism from Indian national character. Indians relatively possess better characteristics, it is another part of the coin that they dislike to project the real image of their personality. This tendency virtually leads others to conjecture that Indians lack desirable characteristics. Different pronounced characteristics of Indians have been identified, the result can be used or taken into consideration while formulating plannings for the prosperity of the society.

This work may also help the predecessors who are intended to study relevant subjects of concern. Further, since the characteristics of Indians identified in this research differ widely from those obtained in earlier researchers, this leaves a provision for verification.

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(Phone : 362964)

Knowledge and Opinion of the Farmers Towards integrated control of Rice Pests Programmes

Sri B. Dharma Rao

Agricultural Officer, State Department of Agriculture,

F. C. O. Laboratory, Bapatla

Dr. P. Venkata Ramaiah

Professor of Extension

The study was conducted to find out behavioural changes in terms of knowledge and opinion of the farmers in the farmers of Kolakaluru village of Guntur District of Andhra Pradesh. Kolakaluru and Chadalavada were selected purposively for the study as adopted and control villages respectively. 75 farmers were selected both in adopted and control villages respectively by using simple random sampling technique in research design followed was an ex-post facts with control group. The independent variables like age, education, farm size, contact with extension agency. Socio, economic status, risk orientation, income, credit orientated training, farming experience and innovativeness. Some are significantly related and some are non significantly correlated. The literature gathered from related literature was presented with a hope that they can be used in general. Majority of the respondents fell under high and medium level groups in the case of adopted village with respect to knowledge where as in control village with respect to their level of knowledge as indicated by 'z' value. The mean knowledge level of the adopted village farmers was higher than those of control village farmers. The opinion of the farmers was high to medium in adopted village group whereas in control village opinion was medium to low due to lack of education, non-exposure to developmental programmes and lack of contact with extension agency, lack of proper training and unwillingness to take up new practices immediately.

INTRODUCTION

Agriculture is a key factor in a study of Agriculture. Agricultural production is not a smooth and continuous process. Agricultural production depends upon timely rains, adequate water management, soil, conservation and modern technology. The concept of the first line extension role of the institutions/scientists need proper recognition and strengthening in all the developing countries as a foundation to main extension system. Ministry and department of agriculture.

The experience of national demonstration led to believe that demonstration of a particular technology on an area basis would be more effective in convincing farmers and would provide greater scope for field testing and constraint analysis. The basic approach under this extension project has been to identify and attack a common problem on a community basis. An attempt has been made in this study to evaluate the impact of selected agricultural programmes to uplift the rural farming community particularly with reference to level of knowledge. The study will facilitate in knowing the characteristics of the active farmers with high knowledge.

Revler of Literature : Literature was considered to be the whole body of literacy composition in any language on a given language. Literature helps to acquire general background knowledge in the given field. Association between certain socio-economic and personal characteristics of farmers and their gain in knowledge of improved agricultural practices.

Knowledge about ICOPP Programme : Reddy (1984) reported that majority of the respondents had medium level of knowledge about cattle insurance. A greater percentage of voluntary insured farmers belonged to high knowledge category when compared to other two groups viz., compulsory insured farmers and non-insured farmers. Shethy (1984) reported that knowledge of the technology is the major input for promoting adoption of technology among the farmers irrespective of their economic standing and resourcefulness.

Chaturvedi and Braham Prakash (1983) reported that with regard to the knowledge of the respondents. It was found that majority of the learners as well as non-learners belonged to medium knowledge group.

Rao (1985) revealed that 13.33 per cent of trained and 8.33 per cent of untrained farmers had high knowledge while 73.34 per cent of trained and 75 per cent of untrained had medium level of knowledge and 13.33 per cent of trained and 75 per cent of untrained had low knowledge level. Knowledge of groundnut and paddy cultivation was dependent on education of the trained youth club members.

Rao (1985) inferred that there was positive and significant association between education and knowledge.

Opinion of the farmers : (a) Majority of the trained tribal farmers 87.5 per cent stated that they attended the training programme in order to gain more knowledge regarding high yielding variety of paddy.

- (b) All those who have attended the training programme expressed that training programme was conducted at proper time namely in the month of April and May and also stated that it should be conducted before commencement of the season.
- (c) Majority of the trained farmers feel that there is necessity of providing transport for attending training programme.
- (d) Majority of the trained farmers opined that the Audio-visual aids used were effective.
- (e) The opinion of the most of the trainees regarding the institutional training programme was 'good'.
- (f) All the trained farmers expressed that institutional training was useful. Majority expressed that it is useful in gaining knowledge, change of their attitudes and for acquiring skills.

Age and Knowledge : Reddy (1983) stated that non-significant relationships between knowledge on improved dryland agricultural technology and age of the farmers. Hanumarangaiah (1985) found that the age of the farmers was negatively correlated with the knowledge of the farmers. Dosai (1977) in his study on impact of block demonstrations reveal that old age farmers adopted more compared to young farmers in the participant group.

Farm size and Knowledge : Reddy (1983) reported that there was negative non-significant relationship between the farm size and the knowledge of the farmers on dryland agricultural knowledge. Hanumarangaiah (1985) has indicated that there was positive relationship between size of land holding and knowledge of farmers. Rao (1985) inferred that there was no association between farm size and knowledge of the respondents.

Extension agency contact and Knowledge : Reddy (1980) reported that the contact with extension agents enhanced the gain in knowledge. Rao (1983) observed that contact with extension agency was positively related with knowledge of high yielding rice production technology. Rao (1985) inferred that there was positive and significant association between extension contact and knowledge.

Reddy (1984) found that there was significant association between extension agency contact and gain in knowledge in voluntary insured groups only about cattle insurance.

METHODOLOGY

An ex-post-facto research design was followed for the present study. However control group was also introduced for further refinement of the project. It deals with the instruments used for collection of data and statistical procedures used for the analysis of data. Kolakaluru village was only the adopted village and hence it was selected purposively. Chadulnada village in Vemuru Mandal was selected as control village based on simple random sampling technique. 75 farmers were selected in adopted village and 75 farmers in control village respectively. Paddy crop was selected for the study as it was principle crop grown by both adopted and non-adopted villages and it was only the major crop grown in Guntur district.

FINDINGS AND DISCUSSION

Knowledge Level of the Farmers : The study was to find out the differential levels of knowledge among adopted village farmers and control village farmers with respect to selected agricultural practices.

Data collected using schedules were tabulated and analyzed. The results are presented in the Tables and interpreted through frequencies and percentages.

'Based on the knowledge level', the farmers of both the categories i.e., adopted and control village farmers were divided into three groups as those with high knowledge level, medium knowledge level and low knowledge level with regard to improved agricultural practices of paddy. This classification was done based on frequencies and percentages in Table 1.

Table—1 : Knowledge levels of farmers.

S. No.	Category	Adopted village farmers		Control village farmers	
		Frequen cies	Percent age	Frequen cies	Percent age.
1.	High	30	40	5	6.66
2.	Medium	30	40	70	93.34
3.	Low	15	20	—	—

A perusal of the Table 1 denotes that majority of the farmers were under high knowledge and medium knowledge (40% and 40%) respectively and only (20%) under low knowledge group in the case of adopted village farmers. So far as control village group

is conceded. majority of the farmers were having (93.34), medium knowledge and only 6.66% were in high knowledge category.

Based on the above observation, the conclusions and interpretations can be drawn as follows :

Majority of the farmers fell under. high and medium knowledge group in case of adopted village group whereas in control group majority of the farmers fell under medium knowledge group. This shows that adopted village farmers were having higher knowledge than newly adopted village farmers.

Mean Knowledge Level of Adopted Village Farmers and Control Village Farmers :

Mean knowledge level of farmers in respect of improved practices of paddy crop. Hypothesis : There will be no significant difference between the mean knowledge level of farmers of adopted village group and control village group regarding improved agricultural practices,

Table—2 : Mean knowledge level.

S. No.	Crop	Mean Knowledge level		'Z' Value
		Adopted village group	Control village group.	
1,	Paddy	36.69	25.19	3.1926**

* Significant at 5% level of probability.

It is seen from the that the mean knowledge level of adopted village farmers was higher than that of control village groups in respect of paddy improved practicea.

The calculated 'z' value indicated in the table was greater than the table value i.e., at 1 per cent level of probability. Hence the null hypothesis is rejected. Therefore, it was concluded that the farmers in adopted village differed significantly from control village farmers with respect to the knowledge of improved agricultural practices. This means that the programme has made considerable impact.

Opinion of the Farmers Towards Integrated Control of Rice Pests Programme : To find out the opinion of the farmers towards Inter-grated Control of Rice Pests Programme, the farmers were divided in to three groups the farmers who had high opinion, medium opinion and low opinion groups based on the frequency distribution.

Table—3 : Distribution of farmers depending upon their opinion towards Integrated Control of Rice Pests Programme.

S. No.	Categorization of farmers	Adopted Village group		Control Village. group	
		Frequen- cies	Percent- age	Frequen- cies	Percent- age.
1.	High	40	54.00	35	46.68
2.	Medium	30	40.00	20	26.66
3.	Low	5	6.00	20	26.66

The above table reveals that about 53 per cent of adopted village group farmers had high opinion towards Integrated Control of Rice Pests Programme followed by 40.00 per cent with medium opinion and 6.0 per cent low opinion. Coming to control village group, majority of them 46.68 per cent had low opinion followed by 25.66 per cent with medium and low opinion respectively. This indication the adopted village farmers had favourable inclination towards the programme which means the programme has created a lot of impact.

Important findings of the study were as follows :

1. Majority of the respondents fell under high and medium level groups in the case of adopted village with respect to knowledge, whereas in control village, majority of the respondents fell under medium knowledge group.
2. The mean knowledge level of the adopted village farmers was higher than those of control village farmers.
3. There was significant difference among the farmers of adopted village and control village with respect to their level of knowledge as indicated by 'z' value.
4. Age, education, farm size, contact with extension agency risk orientation, income, training, farming experience and innovativeness were positively and significantly associated with level of knowledge in adopted village group.
5. The opinion of the farmers was high to medium in adopted village group whereas in control village opinion was medium to low due to lack of contact

tion, non-exposure to developmental programmes and lack of contact with extension agency, lack of proper training and unwillingness to take up new practices immediately.

CONCLUSIONS

The study has amply demonstrated the effectiveness of opinionrice Pest among the farmers in terms of gain in knowledge extent of adoption and creation of favourable opinion. However, the study has given several findings which could be utilized for future improvement of ORPs in India. It also suggests to organise more programmes on specific problems for wider acceptability of farmers.

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BOOK—REVIEW

Women Police and Social Change, 1991 Shamian Allen, Ashish : New Delhi, 121 pp Rs. 150/-.

The title as well as the issues and the treatment of the material in the book is highly stimulating it is based on a research project. It covers women police in India, Women Police in State (A.P.), Recruitment and Training of Women Police, Women Police Station and Womens Protection cell, Police Women's Preception of their Role, People's and elaborate Women Police Women Police as an instrument of Social change, Conchisian Perception of Appendices.

It reminds one of recent certicle, papers, research work and publication of many workers including that of S. A. Khan and the reviewer himself. Of course some of the journals have been also ignored by this author.

The value of a such a book lies in picking up of the challange in a dirfficult area and doing it very well. Undoubtedly this book is going to prove its worth to police men, police trainers and administrators, social scientists and women-specialists.

(Jitendra Mohan)

Tribal Demography in India, 1991 RNPATI and Lalitender Jagatdeb. Ashish :
New Delhi. Rs. 300/- pp. 263.

In the mosaic of Indian social set up the tribal have only 8% ratio but a significant place considering the national, regional and local concerns shown by formal and non-formal organizations.

This volume includes twenty one remarkably well documented papers in the broad areas of Tribals in India; Tribal Development Policies & Issues : Need for Micro Studies; Contraceptive Prevalence, Fertility, Birth Spacing & Family formation among Tribals of India : Some case studies; Health Issues Among Tribals : Some Micro Studies by some of the leading experts in the areas of Demography, Health, Tribal Research and Development.

This volume is a highly valuable and useful document. However work on association of some other experts in the area of tribal behaviour could have added to its value.

(Jitendra Mohan)

Mental Handicap Among Rural Indian Children. 1992 Anima Sen Sage : New Delhi. Rs. 275/ pp. 308.

One of the experts in mental retardation has come out with a valuable research report in this area of great concern.

The Union Ministry of Social and Women Welfare. Government of India, New Delhi sponsored this research project, and was completed in 1986. It is a welcome addition to the growing literature in the field of mental retardation—handicap. The title—Rural Indian Children—appears more ‘promising’ as the villages around Delhi could hardly be defined as rural India. Pages 19, 190 and 290 could easily be corrected. Though the preface appears to be an attempt to highlight the handicap/difficulties faced by the author, all the researchers in India experience similar or more profound hurdles.

It is a well produced book including most of the relevant researches reported in journals and reports; well-planned survey and aptly quantified data. The quality of this survey reports lies in relating this to the problems of girl child care, education and health care facilities in rural India, and provision of some basic kit to combat the handicap.

(Jitendra Mohan)

IMPACT OF TRANSFER OF TECHNOLOGY PROGRAMMES ON KNOWLEDGE, ATTITUDE AND ADOPTION OF VACCINATION AGAINST CONTAGIOUS DISEASES*

M. P. Sagar¹ and R. L. Sagar²

The study was conducted in the 4 O. R. P./L. L. P. villages and 4 non-O. R. P./L. L. P. villages of Bhojipura, Bithrichainpur and Nawab ganj blocks of Bareilly district of Uttar Pradesh. A total of 136 livestock owners (62 from O. R. P./L. L. P. and 74 from non-O. R. P./L. L. P. areas) were selected randomly.

The calculated value of chi-square was found to be significant at 1 percent level of significance which indicated that knowledge level of livestock owners about vaccination against contagious diseases was not independent but associated with the transfer of technology programmes. Further the calculated values of chi-square were found to be not significant which indicated that attitude and adoption levels of livestock owners in respect of vaccination against contagious diseases were independent and not associated with transfer of technology programmes.

INTRODUCTION

Livestock development means increasing the productivity income, employment and improving the technological and agro-socio-economic base of the adopted livestock owners. This to a certain extent depends upon the increase in the level of, knowledge,

* A part of M. Sc. (Extn. Edu.) theiss.

1. Mr. M. P. Sagar : A. P. G. student, Indian Veterinary Research Institute, Izatnagar-243122, U. P.
2. Dr. R. L. Sagar, Senior Scientist, Inchage, Goat Production Technology Transfer Division, Central Institute for Research on Goats; Makhdoom, Mathnra (Farah-281122) U. P.

change in attitude and improvement in the skills of the livestock owners know, understand and act upon the message related to curative and preventive health care, breeding, feeding, management and other related technologies, they receive through different sources/agencies.

METHODOLOGY

Measurement of knowledge, attitude and adoption of vaccination against contagious diseases.

Knowledge about H. S., F. M. D., R. P. and Vaccination against them : Knowledge about H. S., F. M. D., R. P. and Vaccination against them developed by Goswami (1987), was used to measure one. This knowledge test consisted of 28 statements.

Attitude towards Vaccination against contagious diseases : Attitude towards vaccination against contagious diseases, scale developed by Sagar and Kunzru (1988) was used in order to measure the attitude of livestock owners towards vaccination against contagious diseases.

Adoption Index of H. S. Vaccination : It is expressed as percentage of vaccinated animals under H. S. Vaccination to the total number of animals.

Area of study and Selection of Respondents : There are 15 blocks in the Barilly district of Uttar Pradesh out of which 3 blocks namely; Bhojipura, Bithrichainpur and Nawabganj were selected purposively for conducting the study. Dabhoura and Manda Villages from Bhojipura block, Mohampur from Bithrichainpur block and Dhakia Milak Mohammdpur from Nawabganj block were selected randomly from O. R. P. and L. L. P. area out of a total of 14 villages. Ladpur and Chakdah villages from Bhojipura Simra from Bithrichainpur and Shahpur from Nawabganj blocks were selected randomly from non O. R. P. and non L. L. P. area at a suitable distance where neither such programmes were introduced nor the spillover effect of programmes were obviously evident. Thus 4 villages from O. R. P. and L. L. P. area and another 4 from non O. R. P. and L. L. P. area were selected for the study.

The livestock owners of O. R. P. and L. L. P. villages and non O. R. P. and L. L. P. villages were stratified into three categories as marginal, small and medium large separately on the basis of their size of land holding and having atleast one breedable milch animal. A proportionate random sample (20% of total households) was drawn from each of the three categories of livestock owners separately from each group of villages. Thus, 35 marginal, 19 small and 8 medium large livestock owners from O. R. P. and L. L. P. area were selected. Forty marginal, 17 small and 17 medium large livestock owners from non O. R. P. and non L. L. P. area were selected. Total numbers of livestock owners selected for the study were 136.

The field investigation was carried during May to August, 1990.

FINDINGS AND DISCUSSION

Distribution of livestock owners in respect of knowledge level of H. S., F. M. D., R. P. and Vaccination against them.

To test the knowledge level of respondents, total 28 questions were included and for each "correct" answer 1 score and for each "Incorrect" answer 0 score was given. Thus a respondent could score maximum 28 and minimum 0 on the basis these scores obtained by the respondents, the knowledge level was calculated and independence was tested, for this practice, three levels were made as "Low" (upto 9.) "Medium" (10-12) and "high" (19-28) and chi-square test was applied. Results are presented in Table 1.

Table-1 : Distribution of Livestock Owners in Respect of H. S., F. M. D., R. P. and Vaccination Against Them According to Knowledge Level.

Knowledge level	Range	Participant No.	%	Non-Participant No.	%	Chi-square value (χ^2)
Lower	0--9	01	1.61	03	4.05	6.758**
Medium	10--18	52	83.87	70	94.60	
High	19--28	09	14.52	01	01.35	
Total		62	100.00	74	100.00	

** Significant at 1 percent level.

Table 1 indicates that 1.61, 83.87 and 14.52 percent of participant livestock owners and 4.05, 94.60 and 1.35 percent of non-participant livestock owners were having low, medium and high level of knowledge about H. S., F. M. D., R. P. and Vaccination against them, respectively.

The calculated value which indicated that knowledge level of livestock owners about H. S., F. M. D., R. P. and Vaccination against them was not independent but associated with transfer of technology programmes.

Distribution of Livestock Owners in Respect of Attitude Level of Vaccination Against Contagious Diseases : To test the attitude level of the respondents, total 14 statements were included and the statements were rated in three point response continuum as "agree" "Undecided" and "disagree." There were 7 positive statements and the same numbers of negative statements. The score allotted for positive statements was agree-3, undecided-2 and disagree-1. For the negative statements reverse order of scoring was followed. Thus, a respondent could score maximum 42 and minimum 14. On the basis of these scores obtained by the respondents, attitude level was calculated and independence was tested. For this practice three levels were made as low (upto 14) "Medium" (15-28) and "High" (29-42) and chi-square test was applied. Results are presented in Table 2.

Table-2 : Distribution of Livestock Owners in Respect of Vaccination Against Contagious Diseases According to Attitude Level.

Attitude level	Range	Participant No.	Participant %	Non-participant No.	Non-participant %	Chi-square Values (χ^2)
Lower	1-14	1	1.61	6	8.11	1.137 N.S.
Medium	15-28	3	4.84	4	5.41	
High	29-42	58	93.55	64	86.48	

N.S.—Not significant.

Table 2 shows that 1.61, 4.84 and 93.55 percent of participant livestock owners and 8.11, 5.41 and 86.48 percent of non participant livestock owners were having low, medium and high level of attitude towards vaccination against contagious diseases, respectively.

The calculated value of chi-square was found to be not significant which indicated that attitude level of livestock owners towards vaccination against contagious diseases was independent and not associated with transfer of technology programmes.

Distribution of Livestock Owners In-Respect of Adoption Level of H. S. Vaccination :
To find out the adoption level of H. S. Vaccination, adoption index was computed which ranged from 0 to 100. Thus, a respondent could score maximum 100 and minimum 0. On the basis of these scores obtained by the respondent, three levels were made as "Low" (Upto 33) "Medium" (34-66) and "High" (67-100) and chi-square test was applied. Results are presented in Table 3.

Table-3 : Distribution of Livestock Owners in Respect of H. S. Vaccination According to Adoption Level :

Adoption level	Range	Participant No.	Participant %	Non-participant No.	Non-participant %	Chi-square Value (χ^2)
Low	0-33	15	24.19	34	45.95	1.738 N.S.
Medium	34-66	09	14.52	03	04.05	
High	67-100	38	61.29	37	50.00	
Total		62	100.00	74	100.00	

N.S.—Not Significant.

Table 3 indicates that 24.19, 14.52 and 61.29 percent of participant livestock owners and 45.95, 4.05 and 50.00 percent of non-participant livestock owners were having low, medium and high level of adoption of H.S. Vaccination respectively.

The calculated value of chi-square was found to be not significant which indicated that adoption level of livestock owners in respect of H. S. Vaccination was independent and not associated with transfer of technology programmes.

The following inferences may be drawn up from the study in respect of knowledge, attitude and adoption levels of vaccination against contagious diseases.

1. Majority of the livestock owners in both participant and non-participant groups were having medium level of knowledge about H. S., F. M. D., R. P. and Vaccination against them.

2. In comparison to participant livestock owners, higher percentage of the non-participant livestock owners had low level of knowledge about H. S., F. M. D., R. P. and Vaccination against them.

3. Relatively lower percentage of the participant livestock owners had medium level of knowledge about H. S., F. M. D., R. P. and Vaccination against them.

4. Higher percentage of the participant livestock owners had high level of knowledge about H. S., F. M. D., R. P. and Vaccination against them than that of non-participant, livestock owners.

5. Knowledge level of livestock owners about H. S., F. M. D., R. P. and Vaccination against them were found to be associated with transfer of technology programmes.

6. Maximum number of the livestock owners in both participant and non-participant groups were having high level of attitude towards vaccination against contagious diseases.

7. In comparison to participant livestock owners, higher number of the non-participant livestock owners had low level of attitude towards vaccination against contagious diseases.

8. Lower percentage of the participant livestock owners had medium level of attitude towards vaccination against contagious diseases than that of non-participant livestock owners.

9. Higher percentage of the participant livestock owners had high level of attitude towards vaccination against contagious diseases than that of non-participant livestock owners.

10. Maximum number of the livestock owners in both participant and non-participant groups were having high level of adoption of H. S. vaccination.

11. Marginally more but equally same number of the non-participant livestock owners were having high and low level of adoption of H. S. Vaccination.

12. In comparison to participant livestock owners, higher percentage of the non-participant livestock owners had low level of adoption of H. S. Vaccination.

13. Higher percentage of the participant livestock owners had medium and higher level of adoption of H. S. Vaccination than that of non-participant livestock owners.

CONCLUSION

It may be concluded that knowledge level of the livestock owners about H. S., F. M. D., R. P. and vaccination against them was not independent but associated with the transfer of technology programmes. The attitude and adoption levels of the livestock owners in respect of the contagious diseases and vaccination against them were independent and not associated with the transfer of technology programmes.

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INTOXICANTS AMONG RURALITES—A SOCIO-PSYCHO STUDY

Harnek Singh and K. J. S. Mangat
Department of Economics and Sociology
Punjab Agricultural University, Ludhiana

INTRODUCTION

From the last few decades the problem of drug abuse has assumed alarming proportion. There is an over rising use of drugs by people of various socio-economic strata. A majority of adolescents and adults are exposed to the opportunity to use various drugs such as alcohol, opium, doda, any form of tobacco etc. Gupta (1978)* states that drug affects not only a greater number of people than over before, but also several institutions such as family, government, education etc. It also leads to social disruption arising from widespread violation of law.

In the beginning people may use drug experimentally i.e. for the curiosity about its effects or in order to conform to the expectations of friends and other persons who are known to them. This practice, afterwards makes them habitual for the whole life. Its use produces subjective change in mind, thinking, level of awareness as well as modifies the individuals' observable behaviour. Apart from this the changing scenario in the Punjab State seems to have contributed a lot towards this phenomena. Keeping all these things in mind, it was considered necessary to conduct a study on this important aspect among ruralites. The locale of the study was Ludhiana district of Punjab State which always remained in the front line of development among the various districts of the state.

The specific objectives of the study was to examine the nature and association of the use of intoxicants with other casual factors among ruralites.

One village was selected purposively. The sample collected was taken from two sets of households i.e. farmers and agricultural labours. The data for all the households falling in these categories was collected in a pre-tested schedule. The frequency distribu-

* Gupta, Sunita, Drug Abuse : Environmental factors. *Guru Nanak Journal of Sociology*, Vol. 8, No. 2, Oct., 1987.

tion analysis pertaining to the aspects such as identification general information and the use of intoxicants were sought from the respondents. In addition to this co-relation analysis was also carried out to examine the association between various variables.

RESULTS AND DISCUSSION

The results of the analysis highlighting the social characteristics of the users are discussed in Table 1. This is followed by Table 2 indicating the frequency distribution of the intoxicant users. In the end, the impact of several variables regarding intoxicants have been incorporated in Table 3.

While studying social characteristics, age, education, family size and size of holding was taken into consideration of the two classes under study. The respondents were of different age groups. In the case of farmers, 36.37 percent were in the age group of 15-24 years, 45.45 percent of 25-39 years and 18.18 percent from the age group of 40 years and above. The percentage of agricultural labourers in different age groups was almost the same as that of farmers. So, in the total sample one third were from 15-24 years, about half of them from middle age category and the remaining were from 40 years and above.

Table-1 : Social characteristics.

Characteristics	Farmings (N=33)	Agricultural Labourers (N=22)	Total (N=55)
Age :			
15-24 years	12 (36.37)	7 (31.82)	19 (34.55)
25-39 years	15 (45.45)	11 (50.00)	26 (47.47)
40 & above	6 (18.18)	4 (18.18)	10 (18.18)
Education :			
Illiterate	4 (12.12)	5 (22.73)	9 (16.36)
Primary	6 (18.18)	4 (18.18)	10 (18.18)
Middle	11 (33.33)	6 (27.27)	17 (30.91)
Matric and above	12 (36.37)	7 (31.82)	19 (34.55)
Family size :			
Upto 4 members	7 (21.21)	2 (9.09)	9 (16.37)
5-7 members	14 (42.42)	11 (50.00)	25 (45.45)
8 members & above	12 (36.37)	9 (40.91)	21 (38.18)
Size of holding :			
Upto 5 acres	18 (54.54)	—	18 (54.54)
5-10 acres	8 (24.25)	—	8 (24.25)
10 acres and above	7 (21.21)	—	7 (21.21)

Figures in Parentheses indicate percentages.

As the level of education is low in the village, about 17 per cent of the total sample respondents were illiterate and almost equal number of them have education upto primary standard. Only one third of them had education upto matric level. In case of two categories more number of agricultural labourers were illiterate than farmers. The education level of farmers was high at middle and matric level than that of agricultural labourers. In general, the level of education among agricultural labourers is very low but due to educational facilities in the same village, all of them were not illiterate.

Alongwith education, family size of the respondents was also taken into consideration. Table shows that in the total sample about half of the respondents had medium i.e. 5 to 7 members and about 39 per cent large family i.e. 8 members and above. In case of two categories, the pattern was the same as that of the total, but more number of farmers had small families than that of agricultural labourers. In the case of large family the percentage of agricultural labourers numbered more than the farmers. The possession of size of land also vary among farmers. About half of them had land upto 5 acres, 24.25 per cent 5-10 acres and 21.21 per cent 10 acres and above. So, in the sample farmers were from each category of size of holding.

About the use of Intoxicants :

In the total sample, 20 per cent of the respondents used more than one intoxicant. The mostly used intoxicant were alcohol, doda, opium, zarda, etc. A majority of them used alcohol only. Out of the two categories a large number of farmers were addicted to alcohol. Only 15.15 per cent used more than one intoxicant. In case of agricultural labourers, though a large number of them were addicted to alcohol but more than one fourth used other intoxicants also. Actually these agricultural labours were not particular to any specific intoxicant but used which ever was available to them. Due to the availability of alcohol at the same place, its use became more frequent.

About the frequency of taking intoxicants 23.64 per cent it every day 16.30 per cent after about seven days. Actually these days were not fixed, but invariably they took only after a week. Some times it so happens that they may use it only when any guest comes. More than half of them said that they used alcohol after some interval which was not fixed. The agricultural labourers were more addicted to intoxicants than farmers in case of using these everyday. The time span of taking intoxicants was more in case of farmers. About one fourth of them took it only after a week. Due to tiredness, labours took these at small intervals. They did not care about time. It all depends upon the availability of intoxicants. Sometime farmers gave to them in the morning so that they may do good work in the field. It was also observed in some of the cases that they can't make its use time and again due to the presence of other members in the house. Some of them also did not make its use to avoid the conflict in the house. Rather womenfolk does not like these things. It was also felt by them that a lot of money was being wasted on intoxicants.

Table-2 : Use of intoxicants.

Variables	Farmers (N=33)	Agricultural Labours (N=22)	Total (N=55)
<i>Number of Intoxicants used :</i>			
One	28 (84.85)	16 (72.73)	44 (80.00)
More than used	5 (15.15)	6 (27.27)	11 (20.00)
<i>Frequency of taking intoxicants :</i>			
Everyday	7 (21.21)	6 (27.27)	13 (23.64)
After few days	19 (57.58)	14 (63.63)	33 (60.00)
After a week	7 (21.21)	2 (9.10)	9 (16.36)
<i>Sources of money :</i>			
From Agril	25 (75.76)	19 (86.37)	44 (80.00)
From agril. dairy and Poultry	3 (9.09)	2 (9.09)	5 (9.09)
From foreign relatives	1 (3.03)	—	1 (1.82)
From transport	4 (12.12)	—	4 (7.27)
Free of charge	—	1 (4.54)	1 (1.82)
<i>Purpose :</i>			
Mental satisfaction	18 (54.54)	14 (59.10)	31 (56.36)
Mental satisfaction, enjoyment and company of others	3 (9.09)	1 (4.54)	4 (7.27)
Relation and enjoyment	11 (33.33)	4 (18.18)	15 (27.27)
Mental satis. enjoyment and relation	1 (3.03)	4 (18.18)	5 (9.10)

Figures in parentheses indicate percentage.

Actually, money lies in the hands of male members. They did not disclose the accounts of money taken from agriculture. It was observed from the table that in the total sample 80 per cent of respondents got money from agriculture (farmers from agricultural produce and workers from agriculture labour), about 10 per cent of them from dairy and poultry and some of them also from foreign relations and transport. Only 1.82 per cent got intoxicants free of charge. The major source of money in case of farmers was agriculture but some of them also got it from transport and foreign relations. Agricultural labourers did get money by doing labour in agriculture, poultry and dairy. Only

one person got intoxicants free of charge from farmers. Some of the Agricultural labourers were not able to afford money for purchasing a bottle of liquor, but they got it by sharing with others. Anyhow they manage it in one or the other way.

About the purpose of taking intoxicants, it was observed that a majority of the respondents took it for mental satisfaction. Again it has upto the level that others as well as they themselves should know that they have taken some intoxicant. About 28 per cent said that they took it for relaxation and enjoyment, 7.27 per cent for company of others and 9.10 per cent for mental satisfaction, enjoyment and relaxation. In case of two categories both have the similar trend as that of total respondents. It is inferred from here that people have some thing in mind mainly for mental relaxation.

Correlation : The relationship between various variables was also calculated which is shown in Table 3. So far as the number of intoxicants used is concerned, the magnitude of co-relation was highest with education but with a negative sign. This indicates that there was inverse relationship between number of intoxicants used and the education. In respect of the frequency of its use with different variables, it has been observed that the frequency of taking intoxicants increases with the size of holding. In case of expenditure on intoxicants, the relationship was found to be highest with age and inverse with the level of education. In respect of sources of moneys with other variables it was inversely related with the education and highly co-related with the age and family size. In case of purpose of taking intoxicants, the size of holding and size of family seems to have a greater impact. The persons making use of intoxicants feel greater satisfaction with large size of holding.

Table-3 : Co-efficient of correlation analysis.

Variables	X_1	X_2	X_3	X_4
Y_1	-0.0019	-0.0350	0.0165	0.0062
Y_2	-0.0027	0.0244	0.0268	-0.0230
Y_3	0.9023	-0.3261	-0.6206	0.8844
Y_4	0.0440	-0.0726	0.0188	0.0470
Y_5	0.0025	-0.0067	0.0123	0.0134

Whereas X_1 stands for Age
 X_2 stands for Education
 X_3 stands for size of holding
 X_4 stands for family size
 Y_1 stands for number of intoxicants used
 Y_2 stands for Frequency of taking intoxicants per month
 Y_3 stands for Expenditure on intoxicants
 Y_4 stands for sources of money for intoxicants
 Y_5 stands for purpose of taking intoxicants

CONCLUSION

It is concluded from this study that persons of all ages though educated or not having small family or large and owning different size of holdings make use of the intoxicants. They mostly used alcohol but sometimes supplement it with opium, doda etc. The frequency of use varied from person to person. The agricultural labourer mostly used it in the evening but occasionally farmers did give some intoxicant in the day time so that they may work well at the farm. They used it mostly for mental satisfaction. Money for this purpose came from agricultural labour which is their main source of income. Some of them get money from dairying also.

Though the farmers use the same intoxicants but they differed from the one used by agricultural labourers in case of quality. More over the source of money for this category was from agriculture but being supplemented by income from dairy, transport and also from relatives who were in other countries. Their main purpose of taking these was to have maximum satisfaction. In addition to this they also make enjoyment in life.

The investment and frequency of its use goes on decreasing with the increase in the size of family. Apart from this the level of education also leads to decline in the use of intoxicants.

A SURVEY OF CAUSES OF NON-ENROLMENT OF ADULTS FOR LITERACY IN HIMACHAL PRADESH

Dr. Krishna Pal*

The study aims to explore factors helpful in increasing enrolment of adults for literacy classes in tribal areas of Himachal Pradesh and suggest certain measures to improve enrolment of tribal adults in the age-group 15-35. A sample of 50 adult education instructors working in adult education programme in district Kinnaur of Himachal Pradesh was administered a specially devised questionnaire to collect the relevant data. The analysis of data revealed that poverty, cold climate, an illiterate society, household work of the tribal people, especially of women affect adversely the enrolment of adults. Further, it was suggested on the basis of pertinent data that there should be the provision of stipend and refreshment for tribal adult learners and more stress on campaign for literacy.

INTRODUCTION

India comprises the largest group of illiterates in the world. As far as women illiterates are concerned, we swamp the rest of the world put together. Illiteracy is a burning issue in this country as it is in the rest of the world, since it is now on the agenda that all people in the world are to be literate to 2000 AD.

After independence the government of India made liberal plan allocations under Five Year Plans in order to fulfil the constitutional obligations by improving socio-economic and educational status of the weaker sections, especially of the scheduled tribes. There is still a gap between the scheduled tribes and other communities especially with regard to their educational attainment. Thus, scheduled tribes have still a long way to go to even-up with the educational development of other communities.

* Research Associate, Department of Special Assistance in Education (DSA), H. P. University, Shimla-171005. Public Domain. Gurukul Kangri Collection, Haridwar

To popularise education among the adults belonging to deprived sections like scheduled caste, scheduled tribe and others the Government of India launched a nation wide programme of adult education on Oct 2, 1978. Nearly after ten years the National Adult Education Programme was transformed into National Literacy Mission (NLM) with renewed thrust, renewed sense of urgency and an impassion to wipe it out within a specified period of time.

The appraisal of various studies of the adult education programme conducted by Ganguli, Pathak and Mirza (1984), Lal and Mishra (1983), Rati (1985), Singh (1985), Trivedi (1984) show the gap in the implementation and formulation of the adult education programmes and also of total literacy. These studies indicate that there are large scale dropouts among the adult learners due to their migratory nature. The irregular attendance of learners due to seasonal nature of their jobs also cause hindrances in the adult education programmes.

In Himachal Pradesh various specific programmes were launched for the education of adults in different tribal areas, namely Kinnaur, Lahai-Spiti and Pangi-Bharmour region of Chamba district. But inspite of all these efforts by the Government and other voluntary agencies there are certain hindrances which came in the way for effective implementation of literacy programmes launched for adults in the tribal areas. Because of the fact that Himachal Pradesh has fixed its target of being fully literate state by 1994, it is desirable to find out the factors that are helpful or hindering the programme of adult literacy in the tribal areas of the state.

Objectives of the Study : The specific objectives of the study are :

1. To enlist factors helpful in promoting enrolment at adult education level in the tribal areas of Himachal Pradesh as enumerated by the adult education instructors.
2. To enlist the factors creating hindrances in the promotion of enrolment at adult education stage in the tribal areas of Himachal Pradesh as revealed by adult instructors.
3. To suggest certain measures to improve enrolment of tribal adults in the age group 15-35 at adult education stage in Himachal Pradesh.

Sample : The study was confined to district Kinnaur of Himachal Pradesh. A sample of 50 adult instructors was drawn to explore the causes of Non-enrolment of tribal adults in the age-group 15-35.

Tools : A questionnaire was developed and used for collecting information for the conduct of study having three parts. (i) General information about the adult centre; (ii) Factors helpful in increasing the enrolment of children at adult education stage; and (iii) Factors which create hindrances in the promotion of adult education.

Analysis of Data : The Information was tabulated item-wise in the form of frequencies. The frequencies were converted into percentages and data were analysed and interpreted item-wise with regard to reasons of non-enrolment among the tribal adults at adult educator stage.

RESULTS

The reasons for non-enrolment, steps taken by the government to promote enrolment and suggestions made by the instructors in this regard may be presented as under :

1. *Reasons of Dis-satisfaction regarding steps taken to increase enrolment* : The reasons spelt-out by the instructors pertaining to dis-satisfaction with regard to steps taken to increase enrolment of adult learners may be summed up in table-1.

Table-1 : Percentage of responses in terms of the reasons of dis-satisfaction relating to the steps taken by the government to increase the enrolment of adults at the adult education stage.

Sr. No.	Response	Percent Occurrence
1.	No employment opportunities and avenues or incentives	100
2.	Lack of interest	100
3.	Reading material is not according to the needs of the tribal people	25

It is evident from the table-1 that all the instructors (100 percent) are of the opinion that there are no employment opportunities or incentives for the adult learners in their areas had also there is lack of interest among these adults in adult education. Furthermore, about 25 percent of the instructors have pointed out that the reading material provided to the adult learners is not according to their needs.

2. *Factors Contributing to low Enrolment* : The various factors contributing to low enrolment are given in Table-2.

Table-2 : Percent of responses in terms of the factors that contribute to the low enrolment of adults.

Sr. No.	Responses	Percent Occurrence
1.	Household work	100
2.	Poverty	52
3.	Cold Climate	41
4.	Illiteracy	31
5.	No employment opportunities and avenues or incentives	12

The Table-2 reveals that the majority of instructors (100 percent) are of the opinion that household work contributes to the low enrolment of adults in the adult education centres. About 40 to 50 percent of the instructors have expressed that and cold climate contribute to the low enrolment. Furthermore, about 31 percent of the instructors pointed out that illiteracy among the tribals, i.e. lack of conducive learning atmosphere contribute to the low enrolment of adults in the adult education centres. Also, a small percentage (12 percent) is of the opinion that there are no employment opportunities or avenues or incentives for the adults after getting such part time education.

3. *Suggestions for making the Programmes of Adult Education more Effective and Meaningful*: The adults education instructors mentioned various suggestions which are categorised in Table-3.

Table-3 : Percentage of responses in terms of suggestions for making the programme of adult education effective and meaningful.

Sr. No.	Responses	Percent Occurrence
1.	Information about new techniques of Agriculture and horticulture	90
2.	Compulsory Adult Education	40
3.	Provision of Refreshment	36
4.	Provision of Radio and newspaper	34
5.	Technical Education	34
6.	Arrangement of co-curricular activities	26
7.	Trained instructors	20

The Table-3 shows that majority of the instructors (90 per cent) suggest that there should be the provision for providing information about the new techniques of agriculture and animal husbandry in the adult education centres. Furthermore, 30 to 40 percent of the instructors have expressed that adult education should be made compulsory to all the adult illiterates and there should be the arrangement of refreshment for the tribal adult learners. It was also suggested that there should be facility of radio and newspaper in the adult education centres. Valuable information about technical education could be provided in the centres. About 20 to 30 percent of the instructors have suggested that there should be the arrangement of co-curricular activities in the adult education centres and instructors of the adult education centres should be properly trained in the techniques and methods of adult education.

GENERAL CONCLUSIONS

1. Most of the instructors in the sample, under study, pointed out that there are certain factors, namely, household work, poverty, cold climate, illiteracy and lack of employment opportunities or incentives that contribute to the low enrolment of adults in the adult education centres in tribal areas of Himachal Pradesh.
2. A number of instructors were of the view that there should be provision of stipend and refreshment for tribal adult learners who enrol themselves in these centres. The Panchayats and Mahila Mandals should take active interest in imparting adult education to the illiterate tribal adults.
3. A majority of instructors were of the opinion that there should be facilities for activities like folkdancing, drama and sports (indoor and outdoor) for the adult learners in the centres.
4. These instructors have also suggested that the instructors of the adult education centres should be properly trained in the techniques and methods of adult education and adult education should be made compulsory in the tribal areas.

SUGGESTIONS

1. The illiterate people should be given some financial help so that they can attend the adult education centres regularly.
2. The services of the retired educated tribal people may also be sought in educating the tribal illiterate people.
3. The curriculum for adult learners should be linked with the tribal development programmes in such a way that the adults are able to improve the quality of their life and increase their earnings. The functional literacy programmes in the tribal areas should include training in farming, horticulture, cottage unelvelsines family welfare programme and social awareness about the evils of untouchability supervision and alcoholism.
4. Efforts should be made to establish community centres in the tribal areas with the facilities of radio, television, news papers and other reading materials covering variety of content i.e. information and recreation so as to compensate the poor home environment and community life.

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PREDICTORS OF MARITAL SATISFACTION OF MOTHERS¹

K. Prathyusha¹ and Dr. S. R. Venkatramaiah²

The effect of personality and socio-demographic variables in predicting the marital satisfaction of ninety mothers has been assessed using multiple regression analysis. The results reveal that personality is an important predictor variable of marital satisfaction of mothers.

INTRODUCTION

Marital satisfaction is the subjective condition in which an individual experiences a certain degree of attainment of a goal or desire (Burr, 1971). It is the focus of many investigations in family area due to its close and intimate relationship to happiness and parenting behaviour of partners in marriage. (Kemper and Reichler, 1976).

A review on marital research reveals that marital satisfaction is a complex phenomena and is derived from situational, behavioural and personality factors (Hicks and Platt, 1970). The present study aims at exploring the effect of personality (Neuroticism and extraversion) and socio-demographic variables (length of marriage, occupational status, type of family and social class) in determining the marital satisfaction of mothers. The significance of the present study arises from the change of social status of women and its associated consequences.

Sample : The sample of the present study comprised of ninety mothers chosen at random from Nellore town of Andhra Pradesh. These mothers belonged to Hindu religion and had a minimum qualification of S. S. L. C. The age of the mothers ranged from twenty eight to fifty years and their length of marriage from fifteen to nineteen years. Majority of them (nearly seventy percent) had at least three children.

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1. Instructor, College of home science, Andhra Pradesh Agricultural University, Hyderabad.
 2. Professor of clinical psychology, department of home science, S. V. University, Tirupathi.

VARIABLES AND MEASURES

(A) *Marital Satisfaction* : Marital satisfaction is the satisfaction of mothers with regard to various aspects of marital relationship such as companionship, decision making, in-law relationships etc. The marital satisfaction of mothers is assessed using a scale developed by the authors (1989).

(B) *Personality* : Eysenck's personality inventory was used to assess the personality dimensions (extraversion-neuroticism) of mothers. The mothers were administered this test as the reported reliability coefficient for this test is found to be high.

(C) *Social Class* : Social class of mothers was quantified using a socio-economic status scale developed by Narayan Rao (1973). The calculation of the score on socio-economic status involved the consideration of differential weightage for subject's income, community, religion, education occupation and locality.

The details on other variables were collected using an interview schedule.

RESULTS AND DISCUSSION

The results of the Multiple-regression analysis were presented in Table-I. As shown in table-I the personality variables entered into the analysis in the first two steps and contributed to fifty seven per cent of variance in marital satisfaction. The b-coefficients of personality variables only were found to be significant. A significant negative association of neuroticism and positive association of extraversion with marital satisfaction revealed that personality is an important predictor variable of marital satisfaction. This finding is in accordance with the findings of Costa and McCrae (1980), Madrova (1980) and Zaleski (1980) where it is also revealed that extraversion traits increase satisfaction and neurotic traits decrease satisfaction.

The role of socio-demographic variables in predicting marital satisfaction has not been established in the present study though several earlier studies (Srivastav, *et al.* 1988) revealed the significant role of socio-demographic variables in predicting marital adjustment. Hence it can be concluded from the results of the present study that personality is an important predictor variable of marital satisfaction of mothers.

Table-I : Summary of Multiple—Regression Analysis.

Step	Independent variable entered	R	R ²	Standard error of multiple estimate	F. Value and level of significance	b-coefficient	't' value	Constant	Zero order correlation	b-coefficient	Percent of variance in dependent variable
1.	Neuroticism	0.75	0.65	4.41	114.98 (1, 88)	1.25	10.25	35.20	-0.75	0.75	56.65
2.	Extraversion	0.76	0.59	4.30	63.24 (2, 87)	0.37 -1.27	2.35 11.08	32.30	0.12 -0.75	0.16 -0.75	2.07 57.21
3.	Social Class	0.77	0.60	4.26	43.76 (3, 86)	0.14 0.37 -1.29	1.59 2.34 -11.30	26.97	0.00 0.12 -0.75	0.10 0.15 -0.77	0.08 2.04 58.32
4.	Length of Marriage		0.78	0.61	33.83 (4, 85)	-0.08 0.16 0.36 -1.32	1.48 1.78 2.30 11.44	28.37	0.04 0.00 0.12 -0.75	-0.10 0.12 0.15 0.79	-0.04 0.08 1.99 59.86
5.	Occupational status	0.78	0.62	4.22	27.53 (5, 84)	1.45 -0.89 0.14 0.32 -1.34	1.23 1.55 1.61 2.05 11.45	27.77	0.04 0.04 0.00 0.12 -0.75	0.08 0.10 0.11 0.14 -0.80	0.86 -0.51 0.07 1.79 60.40
6.	Type of family	0.78	0.62	4.24	22.75 (6, 83)	-0.74 1.46 0.86 0.14 0.33 -1.33	0.43 1.24 1.46 1.60 2.08 11.37	28.33	-0.08 0.04 0.04 0.00 0.12 -0.75	-0.02 0.08 -0.10 0.11 0.14 -0.79	0.05 0.37 -0.49 0.07 1.87 60.61

Note ** $P < 0.01$
* $P < 0.05$

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DIFFERENTIAL PATTERNS OF FARM INFORMATION FLOW TO MARGINAL AND BIG FARMERS

*P. K. Neog, D. K. Kaur and S. N. Bezborra

The paper highlights that Marginal farmers utilize the non-official interpersonal sources more, though perceive as less credible than the official interpersonal and mass media sources. Big farmers perceive more credibility towards official interpersonal and mass media sources and also utilize these sources more than the non official interpersonal sources. Among non official interpersonal sources. Contact farmer the officially recognised source for farm information was perceived as the most credible source by both the groups of farmers. So official recognition of interpersonal sources may be a key factor for credibility enhancement of these sources among the marginal farmers.

INTRODUCTION

More than 40 percent of Indian farmers belong to the marginal category with less than 1 hectre of operational land holding. Strategies for agricultural development in India must therefore be more oriented towards the development needs of marginal farmers. Information regarding improved farm technologies is one of the most crucial need to the development of agriculture through scientific farming. Flow of reliable and up-to-date farm information is attuned to the patterns in which the farmers utilized and credited the information sources. Comparision of source utilization and source credibility patterns of marginal farmers to that of big farmers may hence provide essential tools to formulate appropriate communication strategy for efficient farm information flow to marginal farmers. Differential source utilisation and source credibility patterns of marginal and

* P. K. Neog is Assistant Professor and Dr. S. N. Bezborra is Prof. & Head in the Dept. of Extension Education, Assam Agricultural University, Jorhat-13, D. K. Kaur is at present Extension Scientist at RARS, Diphu, AAU.

big farmers have been well revealed by a number of Indian researches. The source utilization and source credibility patterns of marginal farmers are generally assumed to be similar to that of that small farmers. But adequate research evidences are still not available in support of such assumption. Formulating hypothesis on this assumption the present study has been conducted with the main objective to study the utilisation and credibility patterns of marginal farmers and to compare the patterns with that of big farmers.

RESEARCH METHODOLOGY

Selection of Respondents : The study was conducted in lahowal block of dibrugarh district. To obtain a sample of 100 respondents from a single area, 25 groups of villages were made out of total 50 villages, taking two adjacent villages in a group. One group was randomly selected which contained 114 marginal and 34 big farmers. In order to match the sample with the distribution of the different farm size categories in the study area, purposive cum random sampling technique was used, and subsequently 75 marginal and 25 big farmers were selected as respondents of the study. The categorisation of the farmers were made on the basis of Assam Government accepted criteria as given below :

Operational land holding

0.5 ha. to 1 ha.

Above 2.5

Category of farmers

Marginal farmer

Big farmer.

Selection of Information Sources : Total 9 number of farm information sources were found to be existing in the area from a pilot study and all the sources were included in the investigation. The sources were :

1. Demonstration.
2. Radio.
3. Written material.
4. AED.
5. VLEW.
6. Contact farmer.
7. Panchayat member.
8. Co-operative member.
9. Folk-friends.

Measurement of source utilization : Showing a list of the 9 sources each of the respondents was asked whether he utilized the sources 'never' 'sometimes' or 'often'. Scores were given to each of the sources accordingly, for 'never' 0, for 'sometimes' 1 and for 'often' 3. Summation of scores obtained by a source for all the respondents of each group of farmers were calculated as 'utilization scores' of the source for the respective group of farmers. Utilization ranks of the sources were determined from the utilization scores.

Measurement of Source Credibility : Paired Comparison Techniques (Edward 1951) was used to measure credibility of sources as perceived by the respondent. The sources were presented to the respondents in all possible pairs. The total numbers of pairs were 36 as determined by the formula $\frac{N(N-1)}{2}$, where N =number of sources. These 36 pairs were presented to each respondent asking to judge and choose one of the two sources of each pair in which he attached more credibility. The responses thus obtained were subjected to analysis of 'F' 'P' and '3' matrices, and scales values were obtained for each sources. Credibility ranks of sources for marginal and big farmers were determined separately from the scale values.

RESULT AND DISCUSSION

Source Utilization Patterns of Marginal and Big Farmers : It can be revealed from Table-1 that the marginal farmers utilized the non official interpersonal sources viz. Folk friend, Contact farmer, Co-operative member and Panchayat members more than the official interpersonal sources viz. AEO and VLEW. Contrary to this, big farmers utilized the two official interpersonal sources more than the non official interpersonal sources. Mass media utilization of marginal farmers was found to be much lower than that of the big farmers. Radio was the most utilized source for big farmers which ranked sixth in utilization ranking in case of marginal farmers. Among the nine sources, Written material was the least utilized source for marginal farmer which was forth most utilized source for big farmers. Utilization of Demonstration was also low in case of marginal farmers than that of the big farmers. Thus dissimilar patterns of source utilization of marginal and big farmers can be well revealed from the findings of the study.

Table-1 : Utilization Patterns of Information Sources of Marginal and Big Farmers.

Sl. No.	Sources	Marginal farmers		Big farmers	
		Score	Ranks	Score	Ranks
1.	Demonstration	0.99	IV	0.88	II
2.	Radio	0.37	VI	1.16	I
3.	Written material	0.02	IX	0.80	IV
4.	AEO	0.08	VIII	0.76	V
5.	VLEW	0.28	VII	0.84	III
6.	Contact farmer	1.22	II	0.72	VI
7.	Panchayat member	0.54	V	0.56	VII
8.	Co-operative member	1.08	III	0.28	VIII
9.	Falk friends	1.38	I	0.08	IX

Source Credibility Patterns of Marginal and Big Farmers : A similar pattern of source credibility as perceived by marginal and big farmers can clearly be observed from Table-2. Both the groups of farmers perceived high credibility towards Demonstration, Radio, AEO and VLEW. These four sources occupied the first four places respectively in the credibility rankings of both marginal and big farmers. The non official interpersonal sources except the Contact-farmers were judged as less credible by both marginal and big farmers. Dissimilar perceived credibility pattern of marginal farmers to that a big farmers could only be observed in case of Panchayat member. Marginal farmers ranked Panchayat member as the sixth most credible source, while for big farmers that was the least credible source.

Table-2 : Source Credibility Patterns of Marginal and Big Farmers.

Source	Marginal farmer		Big farmer	
	Scale value	Rank	Scale value	Rank
Demonstration	2.411	I	1.728	I
Radio	1.985	II	1.545	II
Written material	1.063	VII	1.300	V
AEO	1.215	V	1.411	III
VLEW	1.797	III	1.393	IV
Contact farmer	1.735	IV	0.999	VI
Panchayat member	1.095	VI	0.480	IX
Co-operative member	0.968	VIII	0.540	VII
Falk friend	0.520	IX	0.523	VIII

CONCLUSION

Critical examination of the findings on both source utilization and source credibility leads to draw the following conclusions :

(i) Marginal and big farmers differ in their source utilization patterns but similar in the patterns of perceived source credibility.

(ii) Marginal farmers judged those sources more credible which they utilized less, while big farmers utilized those sources more towards which they perceived higher credibility. Low accessibility of the more credible sources viz. official interpersonal and mass media sources, to the marginal farmers was the major cause of low utilization of more credible sources.

(iii) Among non official interpersonal sources fairly high credibility was perceived towards contact farmer by both the groups of farmers. Contact farmer though non official but is an officially recognised source for farm information dissemination in the existing extension service system i.e. T & V system. So generalisation may be made such that official recognition to localite interpersonal sources may enhance their credibility in the farming community.

IMPLICATION

Location specific highly utilized localite interpersonal sources may be identified and subsequently recognised and trained for efficient dissemination of farm information to the marginal farmers.

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EFFECT OF SOCIOLOGICAL AND PSYCHOLOGICAL FACTORS ON ADOLESCENTS' DELINQUENT BEHAVIOUR¹

(Mrs.) Usha Krishna²

A delinquent is a person under age who is guilty of anti-social act believed to be injurious to society and therefore prohibited by the law of the place concerned. Needless to mention, delinquency constitutes the major social problems associated with adolescents. Both sociologists and psychologists equally recognise adolescence as the period of storm and stress. An adolescent is neither a child who can be loved nor he is an adult with a right to participate in a host of social activities. The majority of problems associated with this period may be regarded as normal reactions encountered in the process of growth and development. Not all adolescents are delinquents. The majority of them face this turbulent period and pass on to the higher stage of adulthood without any adverse implication. Although systematic attempts have been made by investigators in India and abroad to explore the factors contributing to delinquency, they cannot be said to be exhaustive in so far as selection of socio-psychological variables is concerned. Besides most of the studies conducted by the Indian investigators are conflicting in nature.

Objectives of the Study : The present study was undertaken to assess the impact of personal characteristics, family background and personality factors on delinquent behaviour among school-going adolescents.

Hypotheses : The following hypotheses were formulated to be tested empirically :

1. Adolescents coming from rural background would have more delinquent behaviour than those coming from urban background.
2. Adolescents belonging to backward and scheduled castes would have more delinquent behaviour than those belonging to forward castes.
3. Adolescents coming from nuclear family would have more delinquent behaviour than those coming from joint family.

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1. Ph. D. Degree awarded by the Magadh University, Bodh-Gaya, Bihar (India) in January 1993.
 2. Lecturer, Postgraduate Centre of Sociology, Gaya College, Gaya-823001 (Bihar).

4. Adolescents of highly educated fathers would have less delinquent behaviour than those of poorly educated fathers.

5. Adolescents having their fathers employed in government service would have less delinquent behaviour than those having their fathers employed in other jobs.

6. Adolescents having poor parental income would exhibit more delinquent behaviour than those having rich parental income.

7. Subjects with high delinquency would score significantly higher on neuroticism than those with low delinquency.

8. Subjects with high delinquency would score significantly higher on extraversion than those with low delinquency.

9. Subjects with high delinquency would score significantly higher on manifest anxiety than those with low delinquency.

10. Subjects with high delinquency would have more guilt feeling than those with low delinquency.

11. Subjects with high delinquency would have less achievement motivation than those with low delinquency.

Sample : The sample comprised 400 male adolescents of Xth grade, drawn equally from schools located in rural and urban areas. The subjects ranged in age from 13 to 15 years.

Tests and Materials : The tests and materials used were :

1. Personal Data Schedule (PDS) to collect information with regard to personal characteristics and family background of the respondents.
 2. Juvenile Delinquency Inventory, developed by Khan *et. al.* (1982).
 3. Eysenck Personality Inventory (EPI), developed by Eysenck and Eysenck (1964).
 4. Taylor's (1953) Manifest Anxiety Scale.
 5. Mosher's (1961) Guilt Inventory.
 6. Bhatia (undated) Achievement Motivation Test.
- Suitable Hindi versions of the tests were used.

Findings : The findings were as follows :

1. An effort was made to examine the impact of sociological factors, such as inhabitation, caste, nature of family, father's education, father's occupation, and father's income on delinquent behaviour. It was found that inhabitation, nature of family, father's education, and father's income contributed significantly to delinquent behaviour among school-going adolescents.

2. Caste factor failed to contribute substantially to delinquent behaviour among adolescents.

3. Adolescents having their fathers employed in government service exhibited more delinquent behaviour than those having their fathers employed in other jobs.

4. Neuroticism trait of personality differentiated significantly the high and the low delinquent groups. As expected the subjects with high delinquency scored significantly higher on neuroticism than those with low delinquency.

5. Extraversion as measured through the *EPI* differentiated significantly the high and low scorers on J. D. Inventory. As expected, the high group scored significantly higher on extraversion trait than the low group.

6. Anxiety as measured through the Taylor's (1953) Manifest Anxiety Scale differentiated significantly the high and the low delinquent groups. As expected, the subjects with high delinquency scored significantly higher on this dimension than those with low delinquency.

7. Sex guilt differentiated significantly the rural adolescents having high and low delinquent behaviour. It was observed that the high delinquent group coming from rural background had more sex guilt than the low delinquent group.

8. Hostility and morality guilt differentiated significantly the urban adolescents having high and low delinquent behaviour. It was found that the high delinquent group coming from urban setting scored significantly higher on hostility and morality guilt than the low delinquent group.

9. Achievement motivation failed to differentiate the high and the low delinquent groups.

10. Delinquent behaviour bore significant positive association with neuroticism, extraversion, anxiety, sex guilt (rural sample only), hostility and morality guilt (urban sample only).

Thus hypotheses formulated in respect of inhabitation, nature of family, father's education, father's income, neuroticism, extraversion, anxiety, and guilt were supported by the present result. In case of other variables, such as caste, father's occupation, and achievement motivation, hypotheses had been rejected.

CONCLUSION

The following conclusions can be drawn from the present study :

1. Adolescents coming from rural background and nuclear family show more delinquent behaviour.

2. Adolescents having their father's poor education and poor income exhibit more delinquent behaviour.

3. Rural and urban adolescents having high delinquency express more neuroticism, extraversion and anxiety.

4. Rural adolescents with high delinquency had more guilt feeling related to sex.

5. Urban adolescents with high delinquency had more guilt feeling related to hostility and morality.

To conclude, some of the sociological and psychological factors as used in the present investigation are more meaningful and relevant in predicting delinquent behaviour among school-going adolescents. But the limitations of this study in respect of sampling, methodology and variables covered cannot be underrated. More systematic studies are therefore needed to explore the effect of cross-cultural variants and institutionalization on delinquent behaviour. However, the present study is a good attempt and it would prove a guideline for future researches to be conducted in this area from the socio-psychological angle.

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EFFECT OF ACHIEVEMENT IN PHYSICS ON ANXIETY AND ADJUSTMENT

S. P. Singh

Lecturer, Govt. Hr. Secondary School, Belargaon, Raipur (M. P.) 493778

This paper presents the outcome of the study the effects of academic achievement on anxiety and adjustment. Two groups have been discriminated on the basis of intelligence and achievement. In general anxiety and adjustment are considered important variables which are contributing towards achievement but results are contradictory.

INTRODUCTION

The explosion of knowledge due to scientific discoveries and technological advancement is indirectly responsible for instability in the world. As the world advances, is passing across the age of competitions and many changes are being witnessed in educational policy the students are undergoing stress, tension and anxiety and are not able to adjust themselves resulting a variation in academic achievement.

Some eminent researchers (Caplehorn and Suffer, 1965; Sharma and Rao, 1983; Moshe, 1991) inferred that there exists a relationship between anxiety and achievement while a negative relationship was indicated for the same factors by Shanmugasdaram (1983) and Mehrotra (1986). On the basis of their studies, several investigators have advocated that adjustment was associated with achievement. In addition, Rajput (1985) determined that adjustment was not meaningfully related with achievement. It was analyzed and pointed out by many Psychologists that intelligence, in general is a factor contributing towards achievement.

When a complete and comprehensive picture of the factors affecting in academic achievement still seems to elude the investigators, it therefore, is pertinent in this context to identify achievers and under-achievers and to distinguish them, is the main purpose of the present study.

Sample : The total sample was composed of 120 students (60 boys and 60 girls) enrolled in XIIth Class (16-19 years old). The subjects were selected from three higher secondary schools of district Bhopal, (M. P.) by employing random sampling technique.

Tools : 1. Jalota's General Mental Ability Test developed by Jalota.

2. Multi-dimensional personality Inventory constructed and standardized by Ku. Manju Agarwal.

3. The criteria of the academic achievement was marks obtained by subjects in Physics at XIth standard annual examination which were collected from the concerned schools of Bhopal.

PROCEDURE

Above mentioned tools were administered on the students within an appropriate interval. The scores on intelligence and marks of each subject which were obtained in physics at annual examination (achievement) have been converted in standard scores (Z-score) to compare the two groups with respect to anxiety and adjustment also. The students whose standard score on intelligence and achievement is $\geq (+0.51)$ is called achievers. While, the pupils whose standard score in intelligence is $\geq (+0.51)$ and on achievement is $\leq (-0.50)$ are termed as under achievers.

Data Analysis : Subjects have been divided in the two categories namely, achievers and under-achievers and selected only 20 subjects for each group on the basis of an expected criteria of groups identification. Significance differences have been computed between identified groups with respect to anxiety and adjustment separately.

RESULTS AND DISCUSSION

From analysis of data mentioned in table 1 & 2 for both achievers and under-achievers, it was resulted that :

1. There is no significant difference between achievers and under-achievers with respect to anxiety (05 level). This finding seems to be noteworthy in the light of contrary results obtained by Caplehorn and Suffer (1965), Sharma and Rao (1983), Moshe (1961), who found that anxiety is a good predictor of achievement.

2. There is significant difference (01 level) between achievers and under-achievers with respect to adjustment. This outcome is supported by several earlier studies conducted by Shanmugasundaram (1983), Mehrotra (1986) and Raman Sood (1992).

Table-1 : Statistical Differences on Anxiety of Achievers and under Achievers.

Groups	Variable (Anxiety)	d.f.	Value of (t) Computed
Achievers	$M_1=45.95$	38	1.049*
	$N_1=20$		
	$S. D_1=1.239$		
Under-Achievers	$M_2=47.25$	38	1.049*
	$N_2=20$		
	$S. D_2=1.239$		

Table-2 : Statistical Differences on Adjustment of Achievers and under Achievers.

Groups	Variable Adjustment	d. f.	Value of (t) Computed
Achievers	$M_1=36.4$		
	$N_1=20$		
	$S. D_1=1.546$	38	2.975**
Under Achievers	$M_2=41$		
	$N_2=20$		
	$S. D_2=1.546$		

* =In significant at the .05 level

**=Significant at the .01 level.

CONCLUSIONS

On the basis of these encouraging results, it is predicated that there is no influence of achievement upon anxiety of the XIIth class students who have able intellectual ability. Adjustment and achievement relation is seen to be one of the most potentially for a better performance of subjects in achievement.

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ANTHROPOMETRIC MEASUREMENTS OF PRE-SCHOOL CHILDREN IN THE RURAL AREAS OF TENALI DIVISION

Vijayakhader* and Kavita

The present study was carried out to assess the quantum of malnutrition through anthropometric assesment i.e. height, weight, head and chest circumference among the selected pre-school children from rural areas of Tenali division in Guntur district of Andhra Pradesh. The analysis revealed that the anthropometric parameters are below the standard values. Severe forms of malnutrition was observed more in the 3-4 year age group children.

INTRODUCTION

Pre-school children constitutes over 20 percent of the total population, are the most vulnerable group. Nearly 45 percent of mortality is observed in this age group in India. The foundation for good health and sound mind are laid during pre-school age. Proper nutrition is one of the most important factor responsible for both physical growth and mental development. Nutritional status of the population depends on the nutritional status of the family in particular pre-school children, the most vulnerable sector of the population. The present study deals with (a) Nutritional status of the pre-school children in rural area as per the Gomez classification; (b) Socio economic status and (c) Relationship between the socio economic status and nutritional status of the pre-school children.

Materials and Methods : Guntur is one of the main districts of coastal Andhra Pradesh consisting of three divisions i.e. Tenali, Guntur and Narasaraopet. Tenali division consists of 19 mandals. A total of 200 pre-school children were selected randomly from the rural areas of 10 mandals of Tenali division, in Guntur district of Andhra Pradesh. Data was collected by way of questionnaire, personal observation and examination of

* Professor and Head, Dept. of Foods and Nutrition, College of Home Science, Bapatla-522 101-Guntur District (A.P.).

subjects on socio-economic status, anthropometric measurements *i.e.* weight, height, head circumference and chest circumference using standardized techniques. These measurements were compared with the standards given by ICMR.

Weight was expressed as percentage of standard weight for given age and sex and degree of malnutrition was assessed using Gomez classification of weight for age. The relationship between the percapita income of the family members and the nutritional status was estimated.

RESULTS AND DISCUSSION

Socio-economic status : Out of the 200 children surveyed there were 105 males and 95 females. It was seen that 17 percent of the subjects lived in absolutely pucca houses, 60 percent in katcha and 27 percent in mixed dwellings. Majority of the respondent mothers were illiterates.

The analysis also brought out that majority of the families (45 percent) in the sample fell in the income range between Rs. 400-600 per month; 43.5 percent in Rs. 600-800 range and the remaining 11.5 percent were in the income range of Rs. 800-1000 per month.

Anthropometric Measurements : The mean weight, height, head and chest circumference measurements were found below the standards of ICMR but the head and chest circumference measurements were nearer to the ICMR standards (Table-1 on page 37).

Female children in the first year of age recorded a higher mean head circumference than that of male children of same age. Table-2 indicates that non-significant relationship was observed between the observed and standard weights of pre-school children. The observed measurement of weight, height head and chest circumferences were lower as compared with the standard values and the difference is maintained through out the pre-school age.

Table-2 : Comparison Between the Observed and Standard Weights of Selected Pre-school Children.

Age (In year)	Gender	χ^2 Calculated Value	
1-2	Male	4.61	NS
	Female	7.064	NS
2-3	Male	14.184	NS
	Female	12.82	NS
3-4	Male	25.22	NS
	Female	20.83	NS
4-5	Male	37.78	NS
	Female	27.01	NS

NS : Not Significant

Table-1 : Mean Anthropometric Measurements of the Selected Pre-school Children.

Age in Years	Gender	Weight (cm)		Height (kg)		Head Circumference		Chest Circumference	
		O	S	O	S	O	S	O	S
1—2	Male	8.14	9.30	70.1	73.8	42.03	46.6	45.3	45.3
	Female	7.18	8.70	69.0	72.8	43.3	46.4	43.5	44.7
2—3	Male	9.41	11.60	79.2	85.8	45.3	48.0	45.9	48.4
	Female	8.64	10.5	76.1	83.8	44.5	46.7	44.4	47.2
3—4	Male	10.67	13.5	84.5	94.0	46.1	49.1	47.6	59.9
	Female	9.91	12.3	84.6	92.8	48.9	47.8	46.7	49.5
4—5	Male	12.30	15.7	93.1	101.5	47.9	50.7	51.1	52.6
	Female	31.72	14.5	92.4	100.3	47.2	48.6	49.0	51.3

O : Observed

S : Standards given by ICMR 1976

Table-3 : Nutritional Status of Pre-school Children According to Different Age Groups.

Age in Years	Gender	Number of observation	Mean Wt. as percentage to Std. Weight for age	Normal	Nutritional Status %		
					I Degree Malnutrition	II Degree Malnutrition	III Degree Malnutrition
1—2	Male	14	87.5	28.6	42.9	28.6	—
	Female	14	82.5	42.9	35.7	—	21.4
2—3	Male	22	81.12	36.4	27.3	36.4	—
	Female	25	82.28	36.0	32.0	32.0	—
3—4	Male	27	79.04	11.1	51.9	25.0	11.1
	Female	22	80.57	36.4	27.3	27.3	9.1
4—5	Male	42	78.34	16.7	45.2	35.7	2.4
	Female	34	80.83	20.6	47.1	32.4	—

Age and Nutritional Status : Nutritional status of the 1st year age group children ranged from normal to I degree malnutrition.

In 2nd year age group children 36 percent of the children were normal followed by 34 percent in grade II malnutrition. None of the children in this age group were found to be in III degree malnutrition.

Fifty two percent of the 3 year old children were in I degree malnutrition and 46 percent of the 4 year age group children were in I degree malnutrition. Higher percentage of 3 and 4 year age group children in I degree malnutrition indicate that they were suffering from mild protein calorie malnutrition. Most of the female children are normal. This was intune with the results of the study conducted by Sunita Devi Sharma and Manoranjan Kalia (1989) Vanitha Thakar and Jyotsna Patil (1989).

Family Income and Nutritional Status : The increase in the annual percapita income of the family reduced slightly the nutritional status of the pre-schoolers. The result also reveal that no significant difference was observed between the body weights of children and income of the parents in all the age groups. (Table-4) Inspite of having high purchasing power, low educational status of the mothers and also due to low nutritional awareness, Majority of the children were in I degree malnutrition.

Table-4 : Distribution of Pre-shool Children According to Income Groups and Grades of Malnutrition.

Income Group	Number of Children	Nutritional Status			
		Normal	Grade I	Grade II	Grade III
Low	85	22 (25.9)	41 (48.24)	15 (17.65)	7 (8.24)
Middle	91	24 (26.4)	33 (25.3)	27 (40)	7 (7.7)
High	24	8 (33.3)	8 (33.3)	8 (33.3)	—

Note : Figures in parenthesis indicate percentage.

CONCLUSION

The study indicates that the mean anthropometric measurements of all age group children were below the ICMR standard values. The difference between the observed and standard measurement were increased with the increase in age from 1 to 4 years.

It also revealed that majority of the selected children in I degree malnutrition followed by II degree malnutrition. Most of the female children were normal in all age groups.

Nutritional status of pre-school children can be improved by imparting timely nutrition education to the mother creating nutritional awareness and also increasing the purchasing power by introduction of income growth activities.

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CONCLUSION

The study indicates that the anthropometric measurements of all age groups of children were below the N.M.R. standard values. The difference between the observed and standard measurement was increased with the increase in age from 1 to 4 years. It also revealed that majority of the selected children in 1 degree malnutrition followed by 2 degree malnutrition. Most of the female children were found in 1st degree malnutrition.

A Study of Creative Thinking among Navodaya Vidyalaya Students of Himachal Pradesh in Relation to Sex and Socio-Economic Status

Dr. Shashi Bala Gautam

Department of Education, Himachal Pradesh University,
Summer-Hill, Shimla-171005.

This study is an attempt to examine the pattern of creative thinking among Navodaya Vidyalaya students in the local cultural milieu of hill-state of Himachal Pradesh in relation to socio-economic status. A $2 \times 3 \times 2$ factorial design with two levels of socio-economic status i.e. high and low, three grade levels (VIth, VIIth and VIIIth) and two levels of sex i.e., boys and girls was used. The data was collected from 866 Navodaya Vidyalaya students from five Navodaya Vidyalayas with the help of Verbal Test of Creative Thinking and Socio-Economic Status Scale Questionnaire. The results show that there was significant development of creative thinking among Navodaya Vidyalaya Students from grade VI to VIII, same for both the sex and socio-economic status groups. This may be attributed to the fact that the environment of Navodaya Vidyalayas is facilitative to the students of all the groups in terms of development of creative talent among adolescent students.

INTRODUCTION

Navodaya Vidyalaya scheme is a new dimension in the realm of education. These vidyalayas are not a poor imitation of the already functioning public schools or model schools. But these have been set up with very high hopes and expectations for providing quality education to children mainly belonging to deprived sections of the society. At present 261 JNVs are functioning 29 state/union territories of India. It has been clearly stated in the Eight Five-Year Plan to establish Navodaya Vidyalaya in all districts

throughout the country by 1977 so as to provide quality education in rural areas on the one hand, and setting model for existing schools for their improved functioning on the other hand. This is in continuation with explicit statement in the National Policy on Education (1986) :

"It is universally accepted that children with special talent or aptitude should be provided opportunity to proceed at a faster place, by making good quality education available to them irrespective of their capacity to pay for it."

Whether talent can be developed or nurtured is an issue of psychological research. The studies conducted at different levels of age or grade show significant development trend in creative abilities (Rawat and Aggarwal, 1977; Singh, 1981; Brar, 1987; Gautam and Singh, 1988). Similarly sex differences is an issue of utmost importance. There is research evidence of significant sex-difference is favour of boys (Dass, 1980; Pandey and Pandey, 1984; Tiwari and Sharma (1978) and also in case of girls (Raina, 1980; Ali, 1989), with some studies showing no difference in creative abilities of boys and girls (Ali, 1987; Pandey and Rai, 1988; Shan, 1989; Campus and Perez, 1989). Socio-Economic status has its own role in fastening creative thinking (Gautam, 1986; Sexana and Sharma, 1987; Bhaskara, 1988).

In view of these research findings pertaining to population groups of different types, it was thought to conduct the study to find out the development of creative thinking among Navodaya Vidyalaya students of Himachal Pradesh.

Objectives—To study the development of creative thinking among Navodaya Vidyalaya students of Himachal Pradesh from VI to VII and VIII grade over rural setting.

To study the sex-differences in the development of creative thinking among Navodaya Vidyalaya students of Himachal Pradesh from VI to VII and VIII grade over rural settings.

Hypotheses : There will be significant development of creative thinking ability among Navodaya Vidyalaya students from VI to VIII grade.

There will be no significant difference in the development of creative thinking ability among boys and girls of Navodaya Vidyalaya students from VI to VIII grade.

METHOD AND PROCEDURE

Sampling : In the present study a representative sample of 866 students from VI, VII and VIII grade was selected from five Navodaya Vidyalayas from rural setting, situated in Shimla, Mandi, Kangra, Hamirpur and Chamba districts of Himachal Pradesh.

Tools : Verbal Test of Creative Thinking (Singh, 1981).

Socio-Economic Status Scale Questionnaire (Koul, 1985).

Design of the Study : $2 \times 3 \times 2$ ex-post-facto factorial design with two levels of sex i.e. boys and girls, three levels of grade i.e., VI, VII and VIII and two levels of socio-economic status (HSES) and low socio-economic status (LSES) was used.

RESULTS

Analysis of Data : The total sample of 866 Navodaya Vidyalaya students (320 of VIth grade, 306 of VIIth grade and 240 of VIIIth grade) was classified in terms of sex and socio-economic status.

High and low socio-economic groups were formed on the basis of mean and standard deviations of socio-economic scores ($M=42.05$, $SD=8.44$); those scoring above " $M+ISD$ " to be designated as high socio-economic status group and those scoring below " $M-ISD$ " as low socio-economic status groups.

Since the minimum number of cases in one of the 12 cells in factorial design came out to be 27, it was decided to have 27 subjects in each group for the computation purpose in the analysis of variance. The means and standard deviations of subjects on total creative thinking score in each of the groups in the factorial design are given in Table-I.

Table-I : Means and standard deviations of total creative thinking scores of Navodaya students in ($SEX \times GRADE \times SES$) $2 \times 3 \times 2$ factorial design.

	Grade						Total	
	VI Boys	VI Girls	VII Boys	VII Girls	VIII Boys	VIII Girls	Boys	Girls
HSES								
M=66.63		73.48	77.33	78.89	77.67	81.37	73.38	77.91
SD=22.09		18.89	18.89	17.53	18.86	18.20	19.95	18.21
LSES								
M=64.96		69.78	70.41	70.37	83.48	78.07	72.95	72.74
SD=18.43		21.94	21.67	17.21	15.22	17.86	18.44	19.00
Total								
M=65.80		71.63	73.87	74.63	80.58	79.72	—	—
SD=20.26		20.42	20.28	17.37	17.04	18.03	—	—

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On the basis of these data, three way analysis of variance was carried out, the summary of which is given in Table-2.

Table-2 : Summary of Analysis of Variance.

Sources of Variation	SS	df	MS	F
Sex	296.61	1	296.61	0.821
Grade	7063.57	2	3531.73	9.775**
SES	753.20	1	753.20	2.084
Sex × Grade	657.20	2	328.65	0.909
Sex × SES	365.23	1	365.23	1.010
Grade × SES	1094.38	2	547.69	1.516
Sex × Grade × SES	240.23	2	120.11	0.332
Within Cell	112717.04	312	361.27	
Total	123187.56	323	381.38	

**Significant at .01 level.

The Table-2 reveals that the *F*-value, 9.775 was found to be significant at .01 level for the main effect of grade, indicating significant increase in total creative thinking score among Navodaya Vidyalaya students of Himachal Pradesh for grades VI to VIII.

To find out the significance of mean differences in total creative thinking score of Navodaya Vidyalaya students 't' test was applied. The results are summarized in Table-3.

Table-3 : Matrix of mean difference along with *t*-values (total creative thinking scores).

Grade		VI (68.72)	VII (74.25)	VIII (80.15)
VI	68.72	—	5.53 (2.14*)	5.90 (2.28*)
VII	74.25	—	—	11.43 (4.42**)
VIII	80.15	—	—	—

**Significant at .01 level.

*Significant at .05 level.

It was further seen that there is significant increase in creative thinking from grades VI to VII ($t=2.14 < .05$), VII to VIII ($t=2.28, < .05$), of course from VI to VIII also ($t=4.42, < .01$). Thus hypothesis "There will be significant development of creative thinking ability among Navodaya Vidyalaya students from VI to VIII grade" was accepted. However, the F-values for the main effects of sex and socio-economic status ($F=0.821, 2.084$) did not turn out to be significant. Furthermore, none of the interaction effects was found to be significant. These results suggest that the creative thinking ability among Navodaya Vidyalaya students of Himachal Pradesh is neither dependent on sex nor socio-economic status. Also, the development pattern of creative thinking from grades VI to VII is not moderated by the variables of sex and socio-economic status, neither independently nor jointly. Thus second hypothesis "There will be no significant difference in the development of creative thinking ability among boys and girls of Navodaya Vidyalaya students from VI to VIII grade" was accepted.

CONCLUSIONS

The results of the present study pertaining to : (i) There is significant development of creative thinking from grade VI to VII to VIII among Navodaya Vidyalaya students of Himachal Pradesh; (ii) There are no significant sex differences in development of creative thinking of Navodaya Vidyalaya students from grade VI to VIII though girls tend to be more creative than boys ; (iii) There are no significant differences among high and low socio-economic status groups of Navodaya Vidyalaya students, though the high socio-economic status group of students tends to be more creative than the low socio-economic status group ; and (iv) Sex and socio-economic status do not interact significantly to affect the development of creative thinking among Navodaya Vidyalaya students from grades VI to VIII.

IMPLICATIONS

To sum up, it may be concluded that the development pattern of creative thinking among Navodaya Vidyalaya students from grade VI to VIII is same for both the sex and socio-economic status for both the sex and socio-economic status groups. This suggests that the environment of Navodaya Vidyalaya is facilitative to the students of all the groups in terms of development of creative talent.

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Factor Content of the Minnesota Teacher Attitude Inventory in Hindi

Vidya Bhushan
Laval University

The Minnesota Teacher Attitude Inventory was translated into Hindi. The translated version was administered to 475 higher secondary school teachers in 20 different schools selected randomly. The responses to the 153 items were inter-correlated and factor analyzed using the principal factor method. Three significant factors were extracted and were orthogonally rotated involving the varimax solution. The three factors were interpreted and were named as : Pupil's Autonomy versus Teacher's Authority, Conflict Between Teachers' and Pupils' Interests, and Strict Discipline and Obedience in Handling Pupils.

INTRODUCTION

The Minnesota Teacher Attitude Inventory (MTAI) developed by Cook, Leeds and Callis (1951) is the most popular such inventory and as shown in various researches it is the best indicator of teachers' attitudes toward children. Callis (1953) conducted a study to test the efficiency of the MTAI in predicting interpersonal relations in the classroom. He found that the MTAI can predict the kind of interpersonal relations which will exist in the classroom about as well as one can predict academic performance by use of intelligence tests.

The MTAI has been translated into other languages representing different cultures. But the question arises, does it measure the same thing after translation as does its English version? In other words, are the attitudes of teachers in different cultures similar? Or, are the attitudes of teachers in different cultures comparable when measured by the same instrument? But before answering this question, it is necessary to find out exactly the attitudes measured by the MTAI in each culture.

To find out the dimensions of teacher attitudes as measured by the MTAI. Yee and Fruchter (1971) conducted a study. They came up with five significant factors which are similar to the factor structure of Horn and Morrison (1965). As the subjects in this study were in-service teachers with an average of about ten years of teaching experience,

the authors claim that the five factors may be considered more stable than if they were based on the responses of pre-service candidates as in the case of Horn and Morrison's study. They also claim that the inventory's construct validity can be clearly defined and is verifiable through the five factors.

In a comparable study, Bhushan (1974) collected data from teachers of French Canadian culture. The responses of the 509 teachers to the 150 items were intercorrelated and factor analyzed using the principal factor method. Five significant factors were extracted and were orthogonally rotated, involving the varimax solution. The resulting five factors were compared with the five factors of the English version. Neither empirical techniques nor subjective comparison showed any perfect correspondence between the factor structures of attitudes of the two cultures. The subjective comparison which indicated a better correspondence showed that nearly 50% of the contents were common to the two cultures. Quebec is surrounded by an English speaking population and the system of education in Quebec is not much different from the rest of North America's. Therefore, there was much similarity in the attitudes of teachers of two different cultures. The systems of education as well as cultures of eastern countries are quite different. Therefore, it is suspected that the attitudes of teachers of these countries will be quite different. But before any comparison is made, it is necessary to find out a valid instrument to measure the attitudes of teachers of that country. This research was intended for this purpose. More specifically the purpose of this research was to find out the factor content of the Minnesota Teacher Attitude Inventory administered to teachers in India.

METHOD

The Minnesota Teacher Attitude Inventory was translated into Hindi, a major language of India. The translated version of the MTAI was translated back into English by another person to check that the translation was correct. The discrepancies between the original and the back translated versions of each item were discussed by the translators to find the correct translations. The final translated version was administered to 475 higher secondary school teachers in 20 different schools selected randomly.

The responses of the teachers were scored with a new logical scoring key (Yee and Kriewal, 1969). This key provides a five step set of weights per item for the range from most favorable to least favorable response, (that is, +2, +1, 0, -1, -2), and ranges from a possible top score of +300 to a bottom score of -300 on the resulting scale. The authors claim that the new key was found to provide slightly higher internal consistency, equivalent validity with pupils' and principals' ratings used as criteria, and a frequency distribution that was not significantly skewed with a greater spread of extreme scores than the original key.

The responses to the 150 items were inter-correlated and factor analyzed using the principal factor method. Three significant factors were extracted and were orthogonally rotated involving the varimax solution.

RESULTS

Factor loadings, means and standard deviations of the three factors are presented in Tables 1, 2 and 3. Items with factor loadings of .36 or greater are reported. The level .36 was chosen since this is the minimum value at which the items did not overlap on the scales. A total of 80 items had loadings of .36 or greater and were used to define the three factors. The three factors accounted for 27% of the total variance.

Table-1 : Factor I Pupil's Autonomy versus Teacher's Authority.

Item Number	Factor Loading	Mean	Standard Deviation	Item Number	Factor Loading	Mean	Standard Deviation
31	.36	1.24	0.81	108	.41	0.74	1.07
42	.36	0.85	1.11	110	.39	0.66	1.07
57	.37	0.89	0.99	124	.58	1.26	0.94
70	.39	1.25	1.02	127	.46	0.87	0.97
71	.55	1.37	0.82	128	.50	1.03	0.97
72	.39	0.94	1.10	133	.53	0.98	1.01
78	.48	0.96	0.90	136	.59	1.09	0.91
85	.53	1.23	0.85	138	.43	0.91	1.00
86	.47	1.23	0.98	142	.41	0.93	0.85
89	.39	0.80	1.06	143	.45	1.15	0.81
100	.55	1.33	0.88	144	.51	1.11	0.87
101	.52	1.04	0.92	146	.37	0.58	1.13
103	.53	1.04	0.97	147	.36	0.48	1.18
104	.57	1.21	0.97	150	.40	0.99	0.95

Factor I contains 28 items. This factor expresses pupil's autonomy in a narrower sense and gives more weight to the teacher's authority in the class. Items involving concepts such as : more freedom, give reasons for the restrictions, the right to disagree openly, etc., indicate that the teacher favouring these statements respects for pupil autonomy. But the items involving concepts such as : feel guilty for misbehavior, permission to leave the class, told what to do, stand when reciting, problems of conduct, not mature to make decisions, made aware of what is expected, etc., indicate that the teacher favoring these statements maintains his/her authority in the class. Negative scores on this factor suggest that the teacher does not agree to allowing freedom to the children and does not keep his/her authority over the students. The means and standard deviations of the items given in Table-I indicate that Indian teachers agree very strongly with the statements. Most of the means are greater than one and most of the standard deviations are around one. It means Indian teachers do allow narrow freedom to the students but at the same time keep their authority over them. Therefore, this factor is titled "Pupil's Autonomy versus Teacher's Authority".

Table-2 : Factor II Conflict Between Teacher's and Pupil's Interests.

Item Number	Factor Loading	Mean	Standard Deviation	Item Number	Factor Loading	Mean	Standard Deviation
34	.37	-0.22	1.35	117	.41	-0.13	1.22
39	.38	-0.48	1.22	119	.47	-0.38	1.27
41	.40	-0.47	1.22	121	.47	0.18	1.16
66	.36	0.16	1.23	122	.40	0.04	1.11
67	.42	-.27	1.08	123	.52	-0.36	1.23
83	.36	-0.04	1.20	129	.36	0.31	1.21
87	.37	-0.51	1.30	130	.39	0.38	1.04
91	.38	0.43	1.13	131	.43	0.08	1.09
92	.37	0.45	1.10	132	.53	-0.49	1.27
93	.44	-0.20	1.26	134	.48	-0.09	1.23
99	.40	-0.12	1.27	135	.52	-0.38	1.23
106	.41	-0.15	1.42	137	.39	0.23	1.04
109	.38	0.16	1.18	139	.37	0.29	1.21
113	.47	-0.24	1.21	148	.44	0.06	1.17
114	.42	0.22	1.16	149	.46	-0.14	1.22
116	.38	0.37	1.14				

Factor II contains 31 items. This factor has items with positive as well as negative means. It indicates that the teachers agreed with some of the statements but disagreed with the rest. The items of this factor are of such a nature that agreeing on some and disagreeing on others still measures the same concept. The statements such as : who fail to prepare their lessons should be kept after school, too many activities lacking, no business asking questions about sex, young people are too frivolous, will not think for themselves, too easy time and not learn to do real work, not practical to base school work upon children's interest, who bites his nails needs to be shamed, no excuse for the extreme sensitivity, not meeting school standard should be dropped, etc., if favored, will suggest a teacher's negative attitude towards children's interests. On the other hand the statements such as : pupils should not respect teachers any more than any other adults, given more freedom in the classroom, shortcomings can be overlooked, uninteresting and difficult subjects do the most good, etc., if not favored, will also indicate a conservative attitude of the teacher. The contents of this factor give the concept of conflict between Teachers' and Pupils' Interests. The means of the items of the factor indicate that the Indian teachers do have conflict with pupils' interests.

Table-3: Factor III Strict Discipline and Obedience in Handling Pupils.

Item Number	Factor Loading	Mean	Standard Deviation	Item Number	Factor Loading	Mean	Standard Deviation
12	.39	0.90	1.18	49	.41	0.44	1.27
13	.39	0.92	1.24	51	.45	0.80	1.09
14	.36	0.15	1.32	54	.45	0.26	1.25
15	.36	1.13	1.09	55	.39	0.62	1.15
18	.39	-0.24	1.30	58	.41	1.18	0.98
23	.46	0.71	1.17	75	.46	0.00	1.27
27	.41	-0.03	1.37	82	.38	0.36	1.37
30	.38	-0.14	1.19	84	.39	0.48	1.20
36	.43	0.33	1.21	95	.38	0.21	1.25
47	.41	0.71	1.17	134	.39	-0.09	1.23
48	.36	0.98	1.12				

Factor III contains 21 items. This factor emphasizes strict discipline and obedience in handling pupils as is indicated by the statements: obey the teacher without hesitation, difficult to understand, great emphasis upon keeping order in the classroom, do not make adequate effort to prepare lessons, should be taught to obey an adult, lack productive imagination, teacher knows best, increased freedom creates confusion, not expected to be sympathetic, discipline problems are the teacher's greatest worry, lack common courtesy toward adults, should be seen and not heard, no child should rebel against authority, aggressive children are the greatest problems, should not tolerate use of slang expressions, should not expect talking privileges when adults wish to speak, etc. Agreeing with the statements will suggest that the children should be disciplined and should obey the teacher without questioning. The teacher is concerned about such things as discipline problems, aggressive children, use of slang, lack of application, classroom rules and regulations, writing obscene notes, etc. Most of the means of the items of this factor are positive and the standard deviations are around one. It shows that on the whole the Indian teachers agree with the statements of this factor, although there is a great variation.

The factor structure of the present study is based upon little more than fifty percent of the items. Items that are not included in the factor content may have low reliability and may not have common content with other items. Moreover, there are several items measuring the same content but some are included in the factor structure of one culture. It can also happen if the factor analysis is repeated for the same culture but on a different sample.

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Variability in Pathological Factors in Relation to Age Among Case and Control Group Patients of Coronary Heart Disease

Ashok Kumar Singh and Sandhya Singh Kanshik
86, Ruiya Hostel (Medical Block) B.H.U., Varanasi-5.

The contents of serum cholesterol, serum triglyceride, low-density lipoprotein (LDL), uric acid and fasting blood glucose with age (between 30-55 yrs) of CHD and corresponding control group patients in blood sample. It was found that patients in control group between 30-49 years did not show values exceeding 181-250 mg% serum cholesterol, 131-180 mg% serum triglyceride, 142-182 unit LDL, 5.9-7.4 mg% uric acid and 84-97 mg% fasting blood glucose. In case group, however, an increased value recorded in patients above 251-350 mg% serum cholesterol, 181 mg% serum triglyceride and LDL between 142-182 unit. Uric acid and fasting blood glucose exceeding above 9.1 mg% and 112-125 mg% respectively. Among all factors mentioned above LDL was found statistically significant in control group ($P < 0.001$).

INTRODUCTION

The studies conducted so far reveal that risk of CHD goes up sharply with age (Burch 1979; Jenkins 1988). No significant differences in CHD mortality between the lowest three quintiles of serum cholesterol in men without features of CHD on admission to the study were recorded in men aged 40-64 year (Rose *et.al.*, 1977) Similarly, the coronary heart disease in Isreal (Ysari *et.al.*, 1981) showed a non-significant relation increase in CHD mortality through the lowest four quintile of serum cholesterol in men aged 40-65 year. Some authors after careful review of the literature have concluded that there is no strong epidemiologic evidences to support the relation between serum triglyceride level and coronary heart disease (Brunzeli 1980). Lipid Research Clinics

(LRC) study which included 424 blacks aged 5 to 44 years reported significantly higher HDL cholesterol and lower LDL and ULDL cholesterol levels in black than in whites (Tyroler, *et al.*, 1980). Since Gertler *et al.*, (1951) reported an association of elevated serum uric acid with myocardial infarction prior to age 40 in males in 1951, numerous studies have confirmed this association (Benedek 1967, Breckenridge 1966, Gertler 1964, Lovering & Longobardi 1961, Jacobs 1979, Shoskes 1976, Fessel 1980). Some accounts on the role of hyperglycaemia on CHD met with the result of Fuller *et al.*, (1980) in the white Hall study. The three research papers by Pyorala *et al.*, (1979), Stamler *et al.*, (1979) and Fuller *et al.*, (1979) reported deaths in CHD due to elevated blood sugar.

The present study proclaims physio chemical investigations of varying age group of patients attending OPD/ward of cardiology/Kayachikitsa, IMS, B H.U. The validity of one hundred case and control were computed by standard statistical method.

MATERIALS AND METHODS

Patients were verbally asked about their age as 21-34 years, 35-49 years, and 50-64 years. Based on the category of age, as recommended by Morse and Furst (1979) in their rating scale for CHD proneness. Clinical investigation for serum cholesterol, serum triglyceride, LDL, uric acid and fasting blood glucose were analysed. Blood sample were collected by the method described by Wotton and Freeman (1982). Estimation of serum triglyceride was made by acetyl acetone method, LDL and serum cholesterol by colorimetrically using uranyl acetate and ferrous sulphate/sulphuric acid method of Devid (1975). The serum uric acid content in blood was estimated in the fasting stage by the method of Brown (1945). Fasting blood glucose estimated by glucose oxidation method (Trinder 1969).

The validity of the data was tested employing χ^2 -test.

RESULTS

Table 1 show that among hundred case and control groups two percent (2%) were below 35 years of age in case group and 18% in control group. Similarly, 38% were in age group between 35-49 years in case group and 19% in control group. In control group highest 60% were below 55 years of age in case group while 63% in control group. In all a maximum percentage of incidence could be recorded in age group 35-55 years in case (98%) and control (82%) groups (Table 1). The calculated mean age was found 50.7 year and 48.75 year in case and control group with the standard deviation 8.03 and 11.75.

Table-1 : Showing distribution of case and control groups according the age.

Age in (years)	Group			
	Case		Control	
	No.	Percentage	No.	Percentage
21-34	2	2.0	18	18.0
35-49	38	38.0	19	19.0
50-64	60	60.0	63	63.0
Total	100	100.0	100	100.0
Mean±SD	50.70±8.03		48.75±11.75	

Value of 't'=1.37, $P>0.20$, $d.f.=4$.

Serum cholesterol level between 30-49 year in control did not exceed, 181-250 mg%. The patients above 49 year age revealed serum cholesterol level upto 350 mg%. Percentage of patients gradually, increased with increase in serum cholesterol level in patients above 49 years. No regular trend was observed in patients between 30-49 years age.

The association between two factors in both groups was found statistically in significant.

Table-2 : Showing distribution of case and control groups according to their age and serum cholesterol.

Serum Cholesterol (mg%)	Age (years)	Case				Control			
		30-49		49+		30-49		49+	
		No.	%	No.	%	No.	%	No.	%
<180		11	27.5	11	18.4	6	16.2	9	14.3
181-250		15	37.5	23	38.3	31	83.7	51	80.9
251-350		14	35.0	26	43.3	—	—	3	4.8
Total		40	100.0	60	100.0	37	100.0	63	100.0

$\chi^2=1.34$, $P>0.50$ $\chi^2=0.09$, $P>0.90$.

Table-3 depicts distribution of serum triglyceride level in case and control groups. It is clear from the table that serum triglyceride level did not exceed 131-180 mg% and this level showed higher number of patients in control group. Percentage of patient (Control) above 49 year was very low above 180 mg% serum triglyceride level. In case group, however serum triglyceride levels increased upto 181+mg% and percentage of patients gradually increased in both age limit i.e. between 30-49 years and above 49 years. The maximum percentage was noted for patients between 30-49 years and above 49 years age in case group.

The association between age and serum triglycerid in both groups were found statistically insignificant.

Table-3 : Showing distribution of case and control groups according to their age and serum triglyceride.

Serum triglyceride (mg%)	Age (years)	Case				Control			
		30-49		49+		30-49		49+	
		No.	%	No.	%	No.	%	No.	%
	<103	5	12.5	5	8.3	12	32.4	10	15.9
	131-180	14	35.0	18	30.0	25	67.6	50	82.5
	181+	21	52.5	37	61.7	—	—	1	1.6
Total		40	100.0	60	100.0	37	100.0	63	100.0

$$X^2=0.95, P>0.50$$

$$X^2=3.81, P>0.10$$

Maximum percentage of patients accounted between 142-182 unit LDL in case (between 30-49 years and above 49 years) and in control between 30-49 year patients above 49 year showing highest percentage in control had LDL level below 141 unit.

The association between age and LDL was found statistically significant in control group ($P<0.001$) and insignificant in case group ($P<0.10$).

Table-4 : Showing distribution of case and control groups according to their age and Low-density lip proteins.

LDL (Units)	Age (years)	Case				Control			
		30-49		49+		39-49		49+	
		No.	%	No.	%	No.	%	No.	%
	<141	16	40.0	18	30.0	18	48.6	51	81.0
	142-182	22	55.0	34	56.7	19	51.4	12	19.0
	183-223+	2	5.0	8	13.3	-	-	-	-
Total		40	100.0	60	100.0	37	100.0	63	100.0

$$X^2=1.07, P>0.01$$

$$X^2=11.27, P<0.001.$$

Table-5 shows changes in Uric acid content with increase in age in case and control group patients. In control, uric acid content above 7.4 was not detected. The

Table-5 : Showing distribution of case and control groups according to their age and uric acid.

Uric acid (mg%)	Age (years)	Case				Control			
		30-49		49+		30-49		49+	
		No.	%	No.	%	No.	%	No.	%
	<5.8	3	7.5	1	1.7	15	40.5	36	57.1
	5.9-7.4	8	20.0	9	15.0	22	59.5	27	42.9
	7.5-9.0	8	20.0	20	33.3	-	-	-	-
	9.1+	21	52.5	30	50.0	-	-	-	-
Total		40	100.0	60	100.0	37	100.0	63	100.0

$$X^2=2.89, P>0.10$$

$$X^2=2.61 P>0.25.$$

highest percentage of patients ranged between 5.9-7.4 mg% followed by low percentage (below 5.8 mg%). In case group, however, the content of uric acid exceeded above 9.1 mg%. Percentage of patients gradually increased with increase in uric acid content. The association between age and uric acid content was found insignificant in case ($P>0.10$), and control groups ($P>0.25$).

Percentage of patients decreased gradually following an increase in fasting glucose level in blood. In control patients value of glucose did not exceed 97 mg%. However, in case group, the value reached above 125 mg%. The maximum percentage of patients was between 70-83 mg% blood glucose in both groups.

The association analysis showed insignificant value for association with age and fasting blood glucose.

Table-6 : Showing distribution of case and control groups according to their age and fasting blood glucose.

FBG (mg%)	Age (years)	Case				Control			
		30-49		49+		30-49		49+	
		No.	%	No.	%	No.	%	No.	%
70-83	20		50.0	24	40.0	30	81.1	48	76.2
84-97	12		30.0	16	26.7	7	18.9	15	23.8
78-111	4		10.0	12	20.0	—	—	—	—
112-125+	4		10.0	8	13.3	—	—	—	—
Total		40	100.0	60	100.0	37	100.0	63	100.0

$$\chi^2=2.16, P>0.25$$

$$\chi^2=0.31, P>0.75$$

DISCUSSION

Table-1 shows that incidence of CHD increases with increase in age. The linear increase in severity of coronary heart disease with age has been accepted in large popula-

tion (Krishnaswamy *et. al.* 1984, Blackburn and Gillum 1980, 82, Burch 1979, Wilcox and Hampton 1980, Chaitman *et. al.* 1981). The percentage incidence of CHD patients was noticed with increase in serum cholesterol, serum triglyceride and uric acid. The association of age with LDL in control group shows the significant result. In others, the associations with age and the serum cholesterol, serum triglyceride, uric acid, fasting blood glucose in both groups and LDL in case group, failed to confirm it. The serum cholesterol increase with age in case group (Table-2) has also been supported by Oliver (1981). The increase in Serum triglyceride was reported due to gain in age in Framingham study (Castelli 1986). The data similarity seems true in this study also (Table-3). Thus, the result that shows increase in serum triglyceride level with increase in age, in agreement with Castelli (1986) and Framingham (1986). Table-5 shows that uric acid increases with increase in age. Gertler *et.al*, (1951) reported to confirm this association and others numerous studies have confirm it (Benedek 1967, Breckenridge 1966, Gertler 1964, Lovering & Longobardi 1961, Jacobs 1979, Shoskes 1976, Fessel 1980). No regular pattern of distribution of LDL and fasting blood glucose was noted with age (Table 4 & 6).

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Self-Concept in Relation to Education

Parveen Khatoon¹

In the present study an attempt has been made to find out the level of self-concept in relation to education. It was conducted on 200 subjects of two groups (i.e. 100 educated girls and 100 uneducated girls). Was concluded that the education is an important factor to bring differences in self-concept. The obtained results showed that the education puts a significant effect the evolution of self-concept.

INTRODUCTION

To Lindergren (1979), the term 'self' generally refers to image, the impression one has about one's behaviour and one's impact on others, and to identify social environment. Nonetheless, important steps in the development occurs when the child strives to break away from the complete dependency of infancy (Ausubel, 1954). According to Coleman (1964) as the 'self' structure emerges, it becomes the essential integrating core of his personality, the reference point around which child's experiences and reaction patterns are organised.

In 1961, a critical review of the growing body of literature on the self-concept was published by Ruth Wylie (1961). Her critique was primarily aimed at the methods, although she also criticized the theory, and her conclusions were rather dismal. Mc David and Harari (1986) are of the opinion that the term self-concept is used to refer to the organized cognitive structure derived from one's experiences of his own self. The self-concept is a particular kind of attitudinal structure. It includes elements of sheer perceptual recognition which do not necessarily always correspond fully to the "reality" of the self. Through such processes as selective attention, perceptual readiness and set, expectancies, and perceptual vigilance and defense, various distortion in self-perception may occur.

¹Naveen Cottage Near, G.P.I.C. Pithoragarh-1.

Khatry (1973) has developed a self-concept inventory in Hindi and Measured self-concept of primary secondary and college teachers. Relationships between self-concept and adjustment of the three categories of teachers were studied and compared. Saxena (1979) is of the opinion that the child's identity and self-evaluation are shaped by the home and the educational institution. He has also discussed the role of the educational institution which provides abundant learning opportunities to the students. Bhalla (1970) in his study constructed and stunderdised a test for identifying disciplined and indisciplined college students of the age group seventeen to twenty two years and compared the two group in respect of their patterns of self-concept.

Aniloff (1977) found that the students who selected academic programme had more positive self-concept and higher occupational expectations than the students who selected business programme. Mullen (1978) compared the difference in the self-concept of high school senior based on type curriculum (Vocational or academic). The finding revealed that vocational education in high school does not affect the development of the self-concept.

The method that teacher adopt, books and curricula, and the classmates all have a lasting influence on psychological development including self-concept. Moreover education is an important vehicle which brings new ideas, concepts, thoughts, and understanding to the individuals. These important works are done not only be the books which the individual reads but the intructions which class-mates and teachers of different socio cultural economic and regional backgrounds also aid it. It was, therefore thought that the education may bring differential processes of the. development of self-concepts. So college and uneducated girls have been included in the present study so as to ascertain the differences in the self-concept of college and uneducated girls.

METHODOLOGY

Sample : In all 200 girls were considered as subjects out of which 100 girls belong to educated and 100 to uneducated girls. The educated and uneducated girls were taken from Almora, Nainital and Pithoragarh districts.

Tool and Scoring : (i) Mohsin's (1979) self-concept inventory (MSCI) was used to measure the self-concept of the subjects. This is 48 item scale of ticked ($\checkmark$), and croshed ($\times$) types. A scores of '1' was given for the items ticked ($\checkmark$) by the subjects and '0' score was awarded to the items crossed ($\times$) by the subjects.

RESULTS AND DISCUSSION

The results of 't' test run between the mean self-concept scores of educated and uneducated girls pools are shows in the table on page 25 ;

Table-1 : Significant difference between mean self-concept scores of educated and uneducated girls.

Group	N	Mean	Sd	Sed	t	Level of Significant
Educated Girls	100	34.92	3.106	0.43	5.86	Significant at .01 level
Uneducated Girls	100	32.37				

A perusal table-1 shows that the Mean self-concept scores of educated girls are 34.92 and those of uneducated girls are 32.37. Their standard deviations and *sed* are 3.106 and 0.43 respectively. The value of CR between the two means is found to be 5.86 which is significant at .01 level of confidence with 198 *df*.

The education differences in self-concept clearly indicate that education is important factor to bring differences in the formation of self-concept. Education plays a positive role in the development of education. The reason is simple that education clarifies the goals of the individual and with the help of knowledge gained from the books, experiences attained at school and college, widened interactional matrix with the students of different socio-economic statuses, religion, socio-cultural background in schools and colleges make the person able to understand the things in reality and help them in sharpening their self-concept. Saxena (1979) has argued that educational institutions provide abundant learning opportunities and shape the child's identity and his evaluation. The finding of Clark (1963), Marston (1968), and Tannenbaum (1967) made clear that schools have fundamental responsibility to enhance the self-concept of their students. Kipnis (1961) obtained that there was greatest amount of changes in self-conception of college freshman in the direction of their best friend's evaluation. In their positive roles schools attempt to serve the disadvantaged. Hence the objective of education in terms of enhancement in self-concept has been described for virtually all programmes for disadvantage (Fantini and Weinstein; 1968; and Similey, 1967). Moreover the improvement of a self-concept seems to be valued as an educational outcome in its own right.

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Effectiveness of U.G.C. Countrywide Classroom Programme on Model of Teaching in Terms of Achievement of the Students

Davraj Goel and Basant Bahadur Singh

Institute of Education, (D.A.V.U.) Indore (M.P.)

INTRODUCTION

Various theories of instruction ultimately come down to one issue, that is, how to make education suitable to the students, how to provide learning experiences which interest the students establish communication which the students, and evoke desirable responses. The best method of teaching is to provide direct purposeful experience to the students. But it is not always possible to provide direct experiences to the students and sometimes they are not desirable. A teacher however learned ethusisatic might be has his own limitation. He can not overcome the barriers of distance and time unless he uses suitable instruction media. There are various media used for the classroom instruction of which Television is one. Communication by the Television is effective because it can transmit a wide range of audio-visual materials including still pictures, films objects etc. The Television can overcome some of the barriers in teaching, such as, distance, time, so it can bring the world of reality to the classroom either through a live broadcast or as mediated through film of video tape. As it is a mass medium, a large number of viewers can take advantage at the same time.

The "Countrywide classroom" project sponsored by the University Grant Commission was launched on 15th August, 1984. The aim of the project is to improve the quality of university level education. The higher education countrywide television programme are produced at the U. G. C. Media centers, namely, EMRC's located at Ahmedabad, Hyderabad, and Pune, MCRC located at J. M. I. New Delhi, AVRC's located at Calcutta, Hyderabad, Jodhpur, Madurai, Roorkee, Srinagar, Patials, Imphal, and Indore. It is under UGC INSAT television project undertaken by the UGC, New Delhi. A mass communication bureaus is also established at the University Grant Commission, New Delhi. Some facilities for television programme production have also been developed in the TTT is.

Rational of the Study : The function of the television as a medium for classroom instruction is to supplement the class instruction. How for the Educational telecasts function effectively is yet to be examined. So far few studies (Shah, 1972; Rahman, 1977; Sombornam, 1980; Kanade, 1982; CET, 1983; Seth, 1983; CIET, 1984; Mohanty and Behra, 1984; Kiran, 1988; Arti, 1988; Anantha, Sayanamad Rajmani, 1988; Das, 1989; Kiran, 1991; Namita Sahoo, 1991) have been conducted in our country. One of the limitation of the instructional television as a medium is one way communication. At present there is no mechanism to get immediate feed-back or reinforcement from the viewers. There is a need to have two way communication through talk-back and mode using hotline telephone or electronic network as computer etc. there is a need to find out effectiveness of educational television programmes with and without talk-back mode under the simulated conditions, so that, it may facilitate decision regarding talk-back network programme.

A series of programmes on different Models of Teaching namely CAM (selection and reception) A.O.M., I.T.M. and Synatics have been produced by EMRCs, Pune and telecast under the UGC countrywide classroom. So there is a need to study the effectiveness of teaching in terms of achievement of the students.

Objectives : (1) To find out the effectiveness of the UGC countrywide classroom programme in terms of achievement of the students.

Hypothesis : (1) There will be no significant difference between the pre-test mean scores and post-test mean scores of the achievement of students through UGC country wide classroom programmes on Models of teaching.

METHODOLOGY

Sample : Model of teaching subject specific available B.Ed. students (Graduates) constituted the sample for the study.

Tools : After viewing each programme an objective type test was constructed by the investigator having various types of items, such as, multiple choice, yes/no, matching type, definition, short answer, and openended.

Research Design : The present study was experimental in nature. In this study pre-test, treatment, post-test design was used. The independent variable was in country-wide classroom Model of Teaching programme and the dependent variable was achievement.

Procedure of Data Collection : A pre-test was administered on the sample students before viewing each programme. Then video recorded programme on models of Teaching was viewed by the students through the CCTV system. After that the same test was administered as a post test. Thus six programmes were viewed by the students on Models of teaching. The total treatment time was 18 Hours and 30 minutes.

Data Analysis : Correlated "r" test was to used to find out the significant difference between the same group means (pre-post test scores).

RESULTS

Table-1 : Significance of difference between the pre-test mean scores and post-test scores with respect to viewing the countrywide classroom programmes.

Model	Pre-test mean	Post-test mean	R	SE pre	SE post	df	T (Correlated)
Synectics	0	9.94	NA	0.	1.26	16	7.88
C. A. M. Reception	26.56	31.22	-.4361	1.17	.52	8	3.17
C. A. M. Selection	9.33	17.44	.72	1.11	.53	8	9.84
A. O. M.	7.11	14.44	.57	.824	1.31	8	6.79
I. T. M.	5.92	11.16	.67	.902	.492	12	10.04

From table-1 It is evident that correlated "r" values of 7.88, 9.84, 6.79, 10.04, with df 16, 8, 8, 12, are significant at 0.01 level and 3.17 with df 8 is also significant at 0.05 level. So post-test mean is significantly higher then the pre-test mean in all the five countrywide classroom programmes on model of teaching. It means the countrywide classroom is more effective than other media.

DISCUSSION

It is evident that through the above presentation through the viewers have gained significantly all the two ETV programmes on Model of Teaching. It is because television as an Audio Visual Medium can utilized the strengths of various media through suitable

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format directing the message to Ear and Eyes, so as to have comprehensive understanding of the view. T. V. has the potency to reproduce the reality if not to the natural extent at least to near natural. A.T.V. programme can be wonderful mix of audiovisual stimuli. If it is designed and produced keeping in the mind the various factors such as audio visual ratio, Language, View composition, Number and level of the teaching points, Time duration, Format, sound and visual effects etc., can be quite interesting and effective.

No doubt television is an audio visual medium but it is more of visual. Visuals have their own language which can communicate equally to multi-lingual groups. If the visuals are adequately strong then they can compensate for any language.

Concluding Remark : It is evident through the above presentation that there is definitely gain through viewing the countrywide classroom programme on models of teaching. So the number and frequency of these programmes could be increased.

IMPLICATIONS

It is evident through the above findings that there is significant gain through the countrywide classroom programme educational T. V. programmes. The number and frequency of the ETV programmes could be increased. For that the infrastructural facilities for the production of countrywide classroom programmes should be expanded. Also additional time slots have to be provided for the transmission of the programmes. It is quite desirable that a separate channel should be provided for educational television programmes.

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Comparative Effectiveness of Differential Reinforcement of Other Behaviour and Timeout on Aggressive Pre-School Children

Dr. (Mrs. Batani Devi* and Dr. (Mrs.) Tehal Kohli**

INTRODUCTION

Usually every living organism reacts aggressively when confronted with those interfering circumstances which disturb the fundamental urges of life. The annoyance is expressed in children by pinching, kicking another child, biting, scratching, snatching toys or by using abuses. Though the expression of aggression in the face of difficulties may be normal in children yet the persistent symptoms of violent and destructive behaviour, when the child uses abusive language, hits and bites others, creates scenes, screams of stamps his feet, are clear signs of maladjustment. This becomes essential to eliminate or at least reduce aggression in children so as to prevent them from becoming delinquents in later life.

Various behaviour modification techniques have been employed abroad to reduce aggressive behaviour. No such attempt has been made in India so far. In the present study, the investigator has used two behaviour modification techniques i.e. differential reinforcement and other behaviour (DRO) and time out (TO) to reduce aggression found in pre-school children. DRO is a procedure in which positive reinforcement is applied contingent on time periods with no display of the targetted aberrant behaviour. This procedure has also been labelled as 'omission training' (Weiher and Harman, 1975). DRO schedule refers to a procedure in which a reinforcer follows any performance the individual emits except a particular one (Ferster and Perrott, 1968). This schedule requires the subject to withhold a response for a specified period of time. If this is withheld, reward is given, if not, the time period begins again from the termination of the response (Reynold, 1967).

Time out (TO) is the punishment procedure in which the punishment is a period of time during which reinforcement is not available. To procedure is used to reduce

* Lecturer, Dev Samaj College of Education, Chandigarh.

** Reader, Education Department, P. U., Chandigarh.

inappropriate behaviour, in which an access to reinforcement is removed for some specified period of time. For example, if a child misbehaves, he may be sent to spend ten minutes in a time out area, perhaps a screened off corner in the back of the classroom (Mikulas, 1978).

A few studies have been conducted to see the effectiveness of DRO and TO separately in reducing aggressive behaviour of children. Allen and Harris (1966) and Repp *et al.* (1976) successfully reduced aggressive behaviour by using DRO. On the other hand, increases in aberrant responding under DRO were reported by Foxx and Shapiro (1978). To procedure had been successfully used to reduce aggression in children by Husted *et al.* (1971), White *et al.* (1972), Drabman and Spitalnik (1973a), Firestone (1976) and Barton *et al.* (1987). However, to the best knowledge of the investigator not even a single study has been conducted to see the comparative effectiveness of these two behaviour modification techniques in India or abroad. Therefore, the investigator planned the investigation to study the comparative effectiveness of DRO and TO on aggressive pre-school children.

METHOD

Design : In the present study control group experimental design was used. There were three groups, two experimental and one control group. Five subjects were randomly assigned to each of the three groups. All the three groups were assessed before and after treatment on the criterion measure of aggression. Control group was given pre-test and post-test on the criterion measure of aggression but was given no treatment. Effectiveness of independent variables i.e., DRO and TO was studied on the criterion variable of reduction of aggression in children. Variables of intelligence and socio-economic status were taken as controls. All the experimental conditions were carried out during the play period.

Sample : Multistaged randomized sampling technique was used in the present study. Out of existing 200 anganwadis (AWs) in Chandigarh, 30 AWs were randomly selected. Of the 30 selected AWs, 10 children from each AW were randomly called for. 15 aggressive pre-school children with age group of 3—6 years from low SES and with DQ range of 90—110 were included in the final sample. Of these 15 pre-school children, 5 children were randomly assigned to each of the two experimental and one control group.

Hypotheses : 1. Behaviour modification technique such as DRO and TO will be effective in reducing aggressive behaviour of pre-school children. 2. DRO and TO will differentially reduce aggressive behaviour of pre-school children.

Tools Used : SES scale by Srivastava (1978) was used to record the socio-economic status of children. The intelligence of subjects was tested with the help of Developmental Screening Test by Bharathraj (1977) and Vineland Social Maturity Scale by Malin (1965). Aggressive children were identified by using the Behaviour Problems Inventory by Murli-dharan (1969). Frequency of aggression was recorded in the observation schedule prepared by the investigator.

Procedure : The socio-economic status scale and problem behaviour inventory were administered on the whole sample of 243 pre-school children. Intelligence tests were administered to only those children who were found aggressive. Strength of target behaviour i.e., aggression was recorded on the observation schedule before intervention was provided. The strength of aggression was measured by measuring the frequency of occurrence of events of aggressive responses during 30-minutes of play period over a period of 2 weeks. Observations were recorded twice a week. Intervention was provided to 10 subjects of the two experimental groups. The treatment period lasted for 4 weeks. Behaviour problems inventory was readministered to check the strength of aggressive behaviour of the termination of treatment.

RESULTS AND DISCUSSION

Significance of difference between the means of pre-test and post-test scores of EG₁, whose subjects were trained through DRO, EG₂, whose subjects were provided intervention through TO and CG whose subjects were provided with no intervention was examined with the help of *t*-values for criterion measure of aggression. The first hypothesis has been tested with the help of entries made in Table 1, 2, 3 and 4. Means, standard deviations and *t*-values of EG₁ and CG on pre-test scores are given in Table-2.

Table-1 : EG₁ and Control Group (CG) comparisons.

Test	EG ₁	CG	<i>t</i> -value
Pre-test	M=38.0	M=36.0	0.1487
	SD=3.61	SD=1.87	
	N=5	N=5	
Post-test	M=12.6	M=36.0	16.78*
	SD=1.52	SD=1.58	
	N=5	N=5	

* $P < .01$

Table-1 indicates that EG₁ and CG do not differ significantly during the baseline period (pre-test) in respect of aggression. However, after the intervention period, when compared these groups differed significantly on the criterion measure of aggression. This suggests that aggressive behaviour of the subjects of EG₁ who were provided intervention through differential reinforcement of other behaviour (DRO) had been reduced considerably. This reduction in aggressive behaviour can obviously attribute to behaviour modification technique DRO. There was found no decrease in aggressive behaviour of CG which further confirms the efficacy of DRO.

Results obtained from pre-test and post-test comparison of experimental group 1 and control group have been presented in Table-2.

Table-2 : Pre-test and Post-test comparisons of EG₁ and CG.

Group	Pre-test	Post-test	t-value
EG ₁	M=38.0 SD=3.61 N=5	M=12.6 SD=1.52 N=5	22.96*
CG	M=36.0 SD=1.87 N=5	M=36.0 SD=1.58 N=5	0.0

* $P < .01$

From the results presented in Table-2, it may be concluded that the aggression of subjects of EG₁ who were provided intervention through DRO had been reduced substantially as there existed significant difference between the means of pre-test and post-test scores of control group. This suggests that DRO technique had been found successful in reducing aggressive behaviour.

EG₂ whose subjects were provided intervention through Time Out (TO) and control group comparison have been presented in Table-3.

Table-3 : EG₂ and CG comparisons.

Test	EG ₂	CG	t-value
Pre-test	M=41.6 SD=2.70 N=5	M=36.0 SD=1.87 N=5	.38
Post-test	M=10.2 SD=1.48 N=5	M=36.0 SD=1.58 N=5	26.61*

* $P < .01$

Entries in Table-3 indicate that significant differences existed between mean post-test scores of EG₂ whose subjects were provided intervention through time out (TO)

procedure and CG, whose subjects were not provided with any intervention to reduce aggression. No such differences were found between the mean pre-test scores of EG₂ and CG. This implies that time out procedure successfully reduced the aggressive behaviour of pre-school children.

Table-4 : Pre-Test and Post-Test comparisons of EG₂ and CG.

Group	Pre-test	Post-test	t-value
EG ₂	M=41.6 SD=2.70 N=5	M=10.2 SD=1.48 N=5	22.78*
CG	M=36.0 SD=1.87 N=5	M=36.0 SD=1.58 N=5	0.0

* $P < .01$

From Table-4, it is observed that there were significant differences between the means of pre-test and post-test scores of EG₂ whose subjects were provided intervention through TO whereas no differences existed between the mean pre-test and post-test scores of CG. Hence, To procedure had been found effective in the reduction of aggression of pre-school children.

To test the second hypothesis of the study i.e. to see the differentials in the effectiveness of DRO and TO, t-value was computed between the mean scores of EG₁ and EG₂. The results are presented in Table-5.

Table-5 : Comparison of EG₁ and EG₂ on the basis of Post-test scores.

Groups	Mean	SD	t-value
EG ₁	12.6	1.52	2.50*
EG ₂	10.6	1.48	

* $P < .05$

It is revealed from Table-5 that mean scores of EG₁ i.e., children who were provided intervention through DRO were larger than the mean scores of EG₂ i.e., children who were trained through TO. This implied that aggressive responses of children of EG₂ were reduced to greater extent as compared to the children of EG₁. Difference between the

mean scores of these two groups was also found statistically significant ($t=2.53, P<.05$). This further indicates that DRO technique was less effective in reducing aggressive behaviour than TO procedure. The second hypothesis, thus, stands confirmed that differentials exist in the effectiveness of DRO and TO.

The analysis of data indicated that both behaviour modification techniques i.e., DRO and TO were effective in reducing aggressive behaviour of pre-school children. DRO procedure produced decreases in aggressive responses in pre-school children and these decreases were statistically significant ($t=22.96, P<.01$). No such decrease in aggression was recorded in the subjects of the control group. This finding provided support for the use of DRO as treatment procedure with aggressive children. These findings are consistent with those of Allen and Harris (1966) and Repp *et al.* (1976) who found DRO as an effective procedure to reduce aggression in children. TO procedure was also found effective in reducing aggressive behaviour of pre-school children. The mean post-test scores of EG₂, i.e., children who were provided treatment through TO procedure, and mean post-test scores of control group differed significantly ($t=26.61, P<.01$) which indicated the effectiveness of TO procedure. This finding confirms the findings of Firestone (1976), Jackson and Calhoun (1977), and Barton *et al.* (1987).

Inspection of the pre- and post-treatment means of DRO group (EG₁) revealed consistent reduction in aggression. Mean differentials (t -values) between pre- and post treatment scores revealed that the decreases in aggression recorded by the investigator were due to treatment provided through DRO procedure. Inspection of pre- and post-test means of TO group (EG₂) also revealed consistent decreases in aggressive responses. Mean differentials (t -values) revealed that reduction in the number of incidents of aggressive responses recorded by the investigator in the 30 minutes of the play period was caused by the treatment provided through TO procedure. Examination of the means of DRO and TO (Table-5) indicated larger pre-post treatment differences on aggression for the TO procedure and this difference was significantly greater than the change for the DRO group. This, there was a tendency for the TO procedure to effect greater reduction in aggression than the DRO programme.

Further research is needed in order to more fully evaluate the differential effects of DRO and TO procedures with pre-school children. The small number of subjects included in this study limits the significance of the results. Future comparisons should include data recorded throughout the treatment programme and follow-up data. Information is also needed concerning the generalizability of both types of treatment to pre-school settings. Finally, since both the treatment procedures produced changes, comparison of these individual treatment to a combination treatment programme would be useful.

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BOOK REVIEW

- (1) *Social Psychology*, 1986, by J. Richard Eiser. London : Cambridge University Press. Hard cover £ 30.00, Paper back £ 10.95, pp. 400.

A remarkable revised and updated edition of *Cognitive Social Psychology : A Guide book to Theory & Research* includes some of the profound chapters on Attitude, Attraction and Influence ; Attitudes & Behaviour ; Motivation, Incentive & Dissonance ; Social Judgement ; Attribution ; Decisions and Representations ; Justice, Roles and Obligations ; Social Identity and Inter group Processes. The most poignant aspects of this book is the formulation of conclusions highlighting achievements and prospects. As a representative text of great usefulness for the students, and teachers of contemporary social psychology it is a highly readable book.

- (2) *Community Psychology*, 1990, T.E. Shanmugam. Madras : Utsav Shanmugam. Rs. 70/- pp. 300.

Professor Shanmugam is a name to reckon in the field of Applied Psychology and this book is another major contribution. Agreeing with Professor Malcolm S. Adisheshiah this pioneering work in community services is a highly useful collection of information, theory and methodology.

The exhaustive range includes Mental Health Model, Behaviouristic Model, Organizational Model, Ecological Model and Social Action Model. The social indicators include Population, Poverty and Beggary Problems of Education, Unemployment and Underemployment, Problems of Women, Alcoholism and Drug Dependence, Delinquency and Crime, Mental Illness and Mental Health. The chapters on Strategies of Intervention and Training and Research would work as guides for future teaching, research and application in this area.

Prof. Jitendra Mohan
Professor of Psychology
Punjab University Chandigarh

A Factorial Study of School Adjustment of Female Adolescent Students

Pushpa Gautam

Deptt. of Education, H. P. University, Shimla-5

The study is an attempt to factor analyse the School Adjustment Inventory (Bhagia, 1967) having five distinct areas of adjustment for redefining the concept of school adjustment. On the basis of the data, collected from a sample of 250 adolescent girls studying in Xth grade, on adjustment in terms of (i) academic, (ii) social, (iii) school administration, (iv) teachers and personal areas, three factors emerged in the factor analysis. Hence, it was concluded that the school adjustment can be measured more comprehensively by developing an Inventory having test items pertaining to (i) adjustment in academic sphere (ii) social adjustment and (iii) adjustment with school administration areas of adjustment.

INTRODUCTION

Adolescence is a developmental period during which a growing person makes a transition from childhood to adulthood. It is a time of striking change and is considered a unique period (Hurllock, 1980). In this period adolescents are expected to attain physical, mental and emotional maturity. The most remarkable characteristic of adolescence is prone to change, because of which he has to adjust in different areas like home, health, social, emotional and school. Though very few studies have been conducted in the area of adjustment (Doss, 1980), the major findings that emerge reveal a greater incidence of adjustment problems only in children.

Gupta M. and P. Gupta (1980) identified some problems related to social and personal adjustment to school. Goswami (1980) developed an adjustment inventory for assessing personality adjustment of adolescent girls. The study reports that the adolescent girls encounter maximum problems in the areas of emotional, mental, school, study and

home adjustment. Physical adjustment and sex adjustment areas were found to be the least problematic. Some other adjustment inventories have been developed to measure personal and social adjustment in the area of neurotic tendencies, feelings of inferiority, guilt, personal worth, attitude towards future, home, school and sex adjustment (Reddy, 1964); and home, health, social, emotional and school or college (Saxena, 1962). Similarly, Bhagia's (1967) Adjustment Inventory measures five aspects of school life viz., academic matters, school mates, teachers, school organisation and school environment in general and self.

Though the study of adjustment problems during adolescence has continued to be a favourite topic of research, the quality of contribution has not kept pace with the quantity. The definition of the construct "adjustment" itself has been as artifact of its measurement, the tools of the study are limited to self-reporters and hence the present study aimed at factor analyzing the areas of school adjustment for its construct validity, with special reference to adolescent girls.

Objectives of the Study : 1. To set up a correlation matrix with the help of scores obtained in the different areas of the school adjustment among high school female students, namely :

(i) Academic Adjustment (*A*), (ii) Social Adjustment (*S*), (iii) Adjustment with school Administration (*G*), (iv) Adjustment with Teachers (*T*), (v) Personal Adjustment (*P*).

2. To rotate the reference axes after extracting the centroid factors of the different adjustment areas and interpret these factors psychologically.

METHOD AND PROCEDURE

Sample : A sample of 250 female adolescent students studying in Xth grade was drawn at random from all the girls' schools situated in Shimla City.

Tool : "The School Adjustment Inventory" constructed by M. N. Bhagia (1967) was used for the collection of data pertaining to the main aspects of school life viz. academic matters, school mates, teachers, school organisation or school environment in general and self.

RESULTS

In the present study the investigator used the technique of "Factor Analysis" for the analysis of data. First of all, the correlations between the scores were computed which the students had obtained on different adjustment areas as *A*, *S*, *G*, *T*, and *P*.

The co-efficients of correlation were arranged in the Correlation-Matrix given in the following Table :

Table-1 : Correlation Matrix.

	Areas				
	<i>A</i>	<i>S</i>	<i>G</i>	<i>T</i>	<i>P</i>
(Academic Matters) <i>A</i>	<i>X</i>	.64	.64	.87	.70
(Social) : <i>S</i>	.64	<i>X</i>	.48	.53	.70
(School Organisation) :	.58	.48	<i>X</i>	.64	.55
(Teachers) : <i>T</i>	.87	.53	.64	<i>X</i>	.66
(Personal or Self) : <i>P</i>	.70	.70	.55	.66	<i>X</i>

After obtaining the correlation matrix "centroid method" for factorial analysis was used. The investigator extracted 1st, 2nd, 3rd and 4th centroid factors. The analysis was stopped after the extraction of 4th factor because it satisfied the criterion given by Guilford and Lacey (1947).

The "Centroid Matrix" giving the values of first, second, third and fourth factors are given in the Table-2.

Table-2 : Centroid Matrix.

Area	Factors			
	a_1	a_2	a_3	a_4
<i>A</i>	.901	.139	.248	-.094
<i>S</i>	.751	-.371	.071	-.065
<i>G</i>	.712	.084	-.250	.119
<i>T</i>	.879	.344	.131	.127
<i>P</i>	.815	-.250	.083	.148

The investigator rotated the "Centroid Matrix" by the "Method of Extended Vectors" because all the values of the first factor loading were positive. The rotated "Factor Matrix" and Intercorrelations of "Reference Axes" are given in Table-3 and Table-4 respectively.

Table-3: Rotated Oblique Factor Matrix with Unextended Vectors.

Area	Factors		
	I	II	III
A	0.465	0.234	0.127
S	-0.003	0.544	-0.011
G	0.004	0.042	0.339
T	0.490	0.001	0.002
P	0.090	0.464	-0.006

Table-4: Inercorrelations of Reference Axes.

	A ₁	B ₁	C ₁
A ₁	1.000	0.077	0.703
B ₁	-0.077	1.000	-0.496
C ₁	-0.703	0.496	10.000

The following observations were made on the basis of the results given in the tables :

The different aspects of school life and adjustment, namely, academic matters, school mates, teachers, school organisation and school environment in general and self are significantly and positively related to each other.

The five aspects of school adjustment after factor analysis got reduced to three common factors, which were named according to the loadings, i.e. "Factor of Adjustment in Academic sphere," "Factor of Social Adjustment," "Factor of Adjustment with school Administration" found to be related with each other. The "Factor of Adjustment in Academic Sphere," measures satisfaction with regard to academic sphere including the teacher and his total personality. "Factor of Social Adjustment," relates to "self" and to inter-personal relationship which are social in nature. The third factor i.e., "Factor of Adjustment with School Administration", refers to adjustment in the general environment of school alongwith general school administration.

CONCLUSION

In the light of these observations, it was concluded that the construct of school adjustment should be defined in terms of adjustment in academic sphere, school adminis-

tration and social adjustment developing an Adjustment Inventory with much more comprehensive approach towards measuring school adjustment among adolescent girl students.

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Minor Industrial Accidents and Major Psychological Trauma : Cryptotrauma—A Clinical Perspective

***M. M. Bagali and Dr. N. A. Ganihar**

Accidents may often have been far more traumatic psychologically and emotionally than appears to be the case, at first sight. Attention is drawn to such traumatic condition.....cryptotrauma and has been illustrated with four clinical vignettes. Emphasis is placed on the need for pains taking analysis of the accident in all its details. Without such careful investigation, "Post traumatic stress disorders" can easily be over looked, since patients tend not to offer the information spontaneously.

INTRODUCTION

The consequence of accidents are major personal medical, social, legal and economic problems [Lukose, 1983]. Accidents are the major cause of post-traumatic stress disorders in civilian life. In order to diagnose PTSD, one expects the patient to have experienced an overwhelming stress, i.e., a challenge to coping resources which is far beyond normal experience. This overwhelming stress implies first, a sense of impending and inevitable death, secondly, the expectation of dying in a most unpleasant manner, and thirdly, total loss of any sense of mastery OR capacity to influence the course of events.

While it is apparent that the persistence of symptoms following an accident must be due to many factors, one which is frequently overlooked is the existence of what Keiser (1968) has described as a "traumatic neurosis". This syndrome follows accidents in which the victim experience the threat of annihilation and is characteristics in the acute phase by a variety of symptoms such as nightmares, reliving the experience, anxiety, fatigue, sensitivity to noise and dizziness. In the chronic phase, there is personality change

*Research Scholar, Department of Studies in Social Work, Karnatak University, Dharwad ; researching on the topic entitled "INDUSTRIAL ACCIDENTS" ; major interest are applied psychology, safety, job satisfaction and accidents
Correspondence concerning this article should be addressed to M.M. Bagali.

with irritability and the development of any of a number of neurotic symptoms and syndromes [Vernor, 1945 ; Krenn, 1957 ; Guarino, *etal.* 1957 ; Issay Pilowsky, 1991].

The purpose of this communication is simply to draw attention to the fact that the true nature of the accident from the patients perspective is often overlooked. The accidents may often appear to be quite minor, and indeed leading to minimal bodily injury, and yet leave the patient psychologically disabled because of the patients subjective experience of the accident which is not immediately apparent. There are a number of reasons why the patient may not spontaneously offer details of the accident which would allow one to appreciate its full details. First, the patient may not think that these details are relevant to the doctors requirements. Secondly, he may be ashamed of his behaviour under the stress and may find it incompatible with his self image of a competent adult. Thirdly, he may be denying OR depressing these memories because of the painful and unacceptable emotions and ideas which are associated with them. Fourthly, he may not mention them because the doctor shows no interest in knowing about the details of the accident. Fifthly, the doctor may show an active disinterest in the details and appear to be discouraging the patient from describing them. This may be due to many reasons : the doctor may be upset by such details and if not able to cope with them, OR he may wish to inhibit "exaggeration" in cases where compensation is an issue. This will depend to some extent on which party he is advising.

The following vignettes are reported to illustrate the sorts of accident experience which patients only revealed after the most detailed and persistent questioning.

Case 1. A railway worker in his forties was living in a converted carriage while working on the outskirts of a country town. At dusk he walked near the tracks looking for a water tap, when he fell head first into a hole. Apart from some musculoligamentous damage, he suffered no major physical injury, but months later was still complaining of pain and disability. Until pressed, he did not report that at the time of the fall, he found himself lying head down in the hole in the dark with an excruciating pain in his neck. He made sounds with difficulty, but no one came. He felt sure that he had broken his neck and might die before he was found.

Case 2. A young mining engineer in his twenties was supervising excavations underground when, in his words, he was "struck on the head by a hopper". He was not unconscious at any time, and apart from a headache was not much incapacitated, although he sustained a fractured zygoma. Further questioning revealed that the hopper weighed many tons and had pressed his head against a fixed steel railing, locking it there while gradually crushing it under its enormous weight. He remembered hearing the bones in his head cracking and wondering how much more he could take before his skull burst. Fortunately, he was released by a workmate and removed to safety.

Case 3. A man in his forties slipped in a workshop while carrying a can of liquid to his machine. He reported that he fell to the ground dropping the can (and spilling its contents), experienced a sharp pain in his lower back and was unable to move. Until pressed, he made absolutely no mention of the fact that, as he lay on the floor, he fully expected that the spilled liquid would be ignited, that he would be engulfed in flames and the highly flammable gases in the workshop would explode. A few months earlier a workmate had been badly burned as the result of an accident in the same workshop.

Case 4: A man in his forties was carrying out maintenance work on machinery which was used for crushing rocks. While he was between the crushers the machine started turning and fortunately for him the switch was turned off just in time. At first he said no more than this, but on closer questioning it became clear that this was a horrifying experience and, as he said, if someone had not switched off the power "I would have been minced up". Many other examples could be given, but these should suffice to make the point that the psychological and emotional trauma associated with an apparently "trivial" accident, can easily be over looked, given the patients tendency to suppress the more horrifying aspects of the experience, and the doctors frequent failure to probe assiduously for them. Until these facts are uncovered, it is very difficult to understand the patients response to the incident, and not at all unusual for him to be regarded as exaggerating [Sridhar, on Biorythms 1990; Pancheri, 1947; Parker, Jr. J. W. 1933].

It should be emphasised that obtaining such information requires a painstaking and unhurried leading of the patient through every detail of the accident and the physical and social setting. The patients perceptions and thoughts must be elicited on a second by second basis: what was happening, what he thought might happen and what others thought, based on their statements and reactions. By the end of the interview, the interviewer should have in detailed and vivid picture of the work setting and the patients experience.

Although managing such patients is difficult and requires a multi-disciplinary approach, the chances of any kind of success are greatly reduced, if the health professionals involved do not know the true nature of the victims accident experience [Ralph, K. White, 1948]. It seems paradoxical indeed, that so often it is the accident itself about which least is known by those attempting to diagnose, manage (OR indeed assess compensation for) the consequences of an accident. With the advent of more specific psychological treatments for PTSD, cryptotrauma [mentioned because of its hidden nature], can no longer be over looked and clinicians will have to provide time for the careful examination of patients so that the folk nature of the accident can be elucidated. The key to achieving this lies in the use of a meticulously detailed interview built on the foundation of good doctor patient rapport.

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Advance Organizer Model : Does it Facilitate Retention ?

Dr. N. N. Pandey

Faculty of Education Banasthali Vidyapith, Rajasthan-304022

INTRODUCTION

Ausubel advocates expository learning at a time when most educational theorists are challenging the validity of these methods. He considers the acquisition of knowledge as an essential goal of schooling. His theory of meaningful verbal learning is applicable to situations where the teacher has to play the role of lecturer. This helps teachers to convey large amount of information as meaningfully and efficiently as possible. He thinks advance organizers as means of strengthening cognitive structure and enhancing retention of new information (Joyce and Weil, 1985).

Some studies (Ausubel, 1960; Kuhn and Novak, 1971; Lawton, 1977) have found that advance organizers generally facilitate learning and retention, however, studies by Barron (1971), Clawson and Barnes (1973), Jerrolds (1968) and Lucas (1973) found little or no support for the theory. This study is a further exploration in this direction.

METHOD

Design : The study was experimental in nature. It used pretest-post test control group design. One of the groups was taught through AOM and the other through the TTM.

Sample : Initially, the sample of this study consisted of 86 B.Ed. girl students of Banasthali Vidyapith. However, for the final analysis, only those students were considered who were present during the administration of the tests and also participated in the teaching - learning process. Thus, the final sample got reduced to 52 out of which 28 were in the experimental group and 24 in the control group.

Data Collection : Intact classes were taken and one of the groups was taught through AOM and the other through TTM. Both groups were taught the same topic "Intelligence and its measurement" for eight periods. Care was taken that the treatment time be equal for both the groups. At the end of the experiment, the criterion test (constructed by the investigators) was administered. The reliability of the test was found to be 0.73. The same test was administered after a gap of 30 days to study retention.

Statistical Analysis : Data were analysed using one-way analysis of covariance. Achievement in educational psychology at the second administration was the dependent variable and achievement just after the teaching was taken as covariate.

RESULTS AND DISCUSSION

(i) *Effect of Methods of Teaching on Retention :* In order to study the effect of methods of teaching on retention, one way ANCOVA was employed on total scores. The results are presented in Table-1.

Table-1 : Summary of ANCOVA for Total Scores :

Source of variation	df	SS y. x	MSS y. x	F	P
Among groups	1	8.56	8.56	1.71	>0.05
Within groups	49	246.18	5.02		

Table-1 reveals that F-ratio is not significant which means that AOM and TTM are equally effective as far as retention of educational psychology is concerned.

(ii) *Effect of Methods of Teaching on Retention of Knowledge :* Comparative study of AOM and TTM on retention of knowledge aspect of educational psychology was done by analysing the data concerning knowledge aspect through ANCOVA. The results are shown in Table-2.

Table-2 : Summary of ANCOVA for Knowledge Scores.

Source of variation	df	SS y. x	MSS y. x	F
Among groups	1	0.19	0.19	<1
Within groups	49	106.35	2.17	

Table-2 shows that F-ratio is less than one. This means that AOM and TTM equally facilitate the retention of knowledge of educational psychology.

(iii) *Effect of Methods of Teaching on Retention of Understanding* : Here also, data concerning understanding aspect was analysed through one-way ANCOVA. The results are depicted in Table-3.

Table-3 : Summary of ANCOVA for Understanding Scores.

Source of variation	df	SS p.x	MSS p.x	F
Among groups	1	1.28	1.28	<1
Within groups	49	133.41	2.72	

It is evident from Table-3 that *F*-ratio is less than one which means that AOM and TTM are equally effective as far as retention of understanding is concerned. The findings of this study are not in tune with the studies of Ausubel (1960), Kuhn and Novak (1971) and Lawton (1977). However, it is corroborated by the findings of Barron (1971), Lucas (1972) and others. In AOM the learning material is presented in a well organised and logical manner and the advance organizer is referred time and again so that the learned material becomes clear and stable. The students learn to analyse the learning material, transform the new knowledge and apply it creatively in novel situations. All these things combined together should have facilitated the retention of learned material. But this study has not revealed such a thing. One reason for such a result may be that the students were exposed to AOM for eight periods only and it is quite possible that the effect of AOM might have been diluted in the span of thirty days.

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Effectiveness of Computer Assisted Instructions for Teaching Singulars and Plurals at IInd Grade

Sanjay L. Mahajan

Seva Sadan's College of Education, Seva Sadan Marg
Ulhasnagar—421003 (Bombay)

At present the teaching-learning process is dominated by the teacher's activities. It means, the teacher is active in the class-room and the students most of the time are passive. This has led to dissatisfaction both among teachers and students. Therefore, the paper intends to study the effectiveness of Computer Aided Instructional material for teaching Vowels and Consonants at IInd standard in terms of achievement. The sample comprised of two groups, each made up of thirty second-grade students, were matched on the basis of IQs. Experimental group was selected from University Innovative School, Indore and Control group was selected from Bright school, Indore.

The paper-pen test was administered to control group after teaching Singulars and Plurals through traditional method. Then the next day the Computer Assisted Instructions on Singulars and Plurals was administered to experimental group and then the same paper-pen test was administered to experimental group. The study reveals that the 't' value of 6.94 exceeds the t critical value of 2.462 at the .05 level at 29 degrees of freedom. This shows that the CAI was effective for teaching Singulars and Plurals.

INTRODUCTION

At present the teaching-learning process is dominated by the teachers' activities. It means, the teacher is active in the class-room and the students most of the time are passive. This has led to dissatisfaction both among teachers and students. Researchers have attempted to design the teaching learning process in such a way so that it is

dominated by the students rather than the teacher. Because of this, different types of instructional materials were developed. These instructional material although made the child an active learner but the instruction was not child centered. It means each child is different and therefore a different type of instructional material be developed with the help of which the child can learn to its maximum capacity. This deficiency to a great extent can be met with the help of the use of computers in teaching-learning process. The computers have vast memory, speed, graphics, animation facility and can be used in any manner one likes. It can work without any error. Technological development, application, and accessibility have produced a surge of interest among early childhood professionals and clients concerning the micro computer's potential role in preschool and early education. Since then a flurry of research has endeavored to address Kelman's [1] concern. Barnes and Hill [2], Cuffaro [3], and Elkind [4] have warned that young children should not be involved with microcomputers.

Objective : To compare the mean achievement of the students taught Singulars and Plurals through Computer Assisted Instructions with the mean achievement of the students taught Singulars and Plurals through traditional method.

Hypothesis : There will be no difference between the mean achievement of the students taught Singulars and Plurals through Computer Assisted Instructions with the mean achievement of the students taught Singulars and Plurals through traditional method.

Sample : Two groups, each made up of twenty second-grade students, were matched on the basis of IQs. Experimental group was selected from University Innovative School, Indore and Control group was selected from Bright school, Indore.

Format of CAI : For the development of the software, screen was divided vertically into two parts. Left part was displayed with all the Rules for making singular to plural and right part was displayed with questions on fill-in the blanks, i.e. Which vowel is missing in the below given word ? Students were asked to press the appropriate rule number key from the left side of the screen. There were twenty fill-in the blanks. This CAI was providing ample opportunities for students to respond to fill-in the blanks based on rules displayed on the left side of the monitor. CAI was also providing feedback as to the correct/incorrectness of each response made. There were number of opportunities in the software like one can choose problem according to his/her ability, and can go forward and backward. If students are not permitted to make an ample number of responses within a software package, the program becomes like a lecture or a page from a text-book which presents subject matter in a one way street communication.

This software program was containing quality sequence i.e. simple to complex, according to maxims of teaching. With appropriate sequential learning the students can experience a high rate of success. Each new response was based on previously acquired learning. In a step by step procedure, students learn new subject matter which is related directly to what was learned previously. A high rate of success needs to be in the offing for each students when CAI is in the offing. This software content was on the understanding level of students. Content too difficult makes for frustration on the part of students. Subject matter which is too easy lacks challenge and boredom may well set in for students. New content must be in the offing and yet the subject matter is attainable by learners. Content presented on the monitor was accurate. Incorrect ideas eliminated from software packages.

Much care was taken to ensure that the CAI covered every part of the unit Singulars and Plurals, and which varying in type, could not be answered without understanding.

Procedure of Data Collection: The paper-pen test was administered to control group after teaching Singulars and Plurals through traditional method. Then the next day the Computer Assisted Instructions on Singulars and Plurals was administered to experimental group and then the same paper-pen test was administered to experimental group. Students read through all the instructions and registered their responses through keyboard according to the instructions given to them. Students could not get the next question unless give the correct response. Scores were collected and analyzed.

Data Analysis: CAI on Singulars and Plurals was used to teach the experimental group and the control group was exposed to a conventional teaching method. Using the coefficient of correlation, the below shown formula for 't' test was used to analyze the data.

X (Experiment)

C (Control)

$N_1=30$

$N_2=30$

$S^2_1=37.21$

$S^2_2=36.10$

$\bar{X}_1=44.80$

$\bar{X}_2=49.10$

$r=+.80$

$df=29$

$f=37.21/36.10=1.03$ (Variances are homogeneous)

$t=6.94$

t value of 6.94 exceeds the t critical value of 2.462 at the .05 level at 29 degrees of freedom. This shows that the CAI was effective for teaching Singulars and Plurals and the null hypothesis may be rejected.

DISCUSSION

The Computer Assisted Instructions for teaching Singulars and Plurals was found to be effective in terms of achievement of students belonging to experimental group than that of control group at the .05 level. This finding is supported by Paul (1985), Francis (1986), Barbara (1987), Carroll (1987), Henry (1987), Johnson, Johnson and Stanne (1986) Hugh (1988), and Woodward, Carnine and Gersten (1988).

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Future Family Life and Sex Education

Dr. B. K. Passi

Professor & Director

Institute of Education, Center of Excellence
Devi Ahilya Vishwavidyalaya, Indore

INTRODUCTION

1. *Vietnam Experiment : Population Education* : Recently I visited Vietnam for a research consultancy in the area of "Family Life and Sex Education in Vietnam". I worked for a training workshop for their mobile teams. We had developed an evaluation design and prepared instruments for family life and sex education. The UNESCO Bangkok, and the National Institute of Educational Sciences of Hanoi have done a fairly good job in this area. I was impressed by the kind of interest shown by the students, teachers, and other participants about family life and sex education. We had futuristic discussions around the following topics related to family life and sex education :

*family : structure, relations, *behavior in the family, *Parental responsibilities, *responsibilities of children, *human sentiments, *friendship, *love, *marriage, *family management, *marriage and family law, *problems of young married couples, *care of old parents.

The topics related to sex education were :

*sex and differences between the sexes, *puberty, *physical changes during puberty, *psychological changes during puberty, *male reproductive organs, *female reproductive organs, *mensuration *fertilization and fetal development, *scientific basis of contraceptive methods, *sexually transmitted diseases, *teenage pregnancy and its consequences, *primary health care.

Vietnam has introduced family life and sex education program in selected high schools. The teachers, students, and administrators have appreciated this program. I had interviewed school going boys and girls, teachers, and administrators. I asked, "Why do you like sex education program having hard information about delicate aspects of human

life ?" Regarding sex education, I was surprised to hear answers from the teenage boys and girls. They reported that sex education is vital to human life and its knowledge would be useful. They further asserted that if schools fail to educate us, we would have to search this information from quacks and pornography. We would pay a heavy price in our future lives. We must not allow these quacks to influence our lives. They said "School is an authentic and sensible institution for providing vital information required by us in different aspects of our lives."

I further wanted to know from the teachers at Hanoi if sex and family life education could be provided through the study of the reproductive systems of plant and animal lives. They were quite pungent about the validity of this indirect approach of sex education. They were very certain about the inadequacy of this approach. The teachers reported that one can stretch the extended relationship between the reproductive processes of plant life and human life. However, they argued that one cannot stretch this point of establishing relationship between biological description of sex education on one side, and the family life education on the other. They believed that family life education is primarily a social phenomenon. It has an exclusive uniqueness and importance to human life. It should not be overlooked by mistake or design.

Further, I asked myself : "Shall we in India, be able to introduce hard information about family life and sex education in near futures ?"

2. *Changing Scenario of Family Life* : We find the changes are coming fast. These changes can create disaster if we fail to act on time. Our youth of tomorrow must become a proactive thinker rather than a reactive agent. Therefore, we must find out :

Traditional Form of family	Shifting Form of family
* extended family	to portable family
* sexagenarians	to childlessness
* child rearing by women	to child rearing by man
* liking to give birth to children	to liking to adopt children
* heterosexual marriage	to homosexual marriage
* peripheral love	to justification love
* permanent family life	to separated family life
* conventional arranged marriage	to temprary marriage
* liking for life long partners	to liking to be single
* marriage with equal age	to marriage with unequal age

"What type of social and technological futures are likely to influence the anticipated family life of our youth?" It is relevant to quote Toffler who asserts that the following significant changes are taking place in the area of family life?

If the above mentioned anticipated changes are going to materialize then we must act fact. These changes have a variety of implications in various walks of life. The legal world, the mass media, the economic world, the recreational world, the medical world, and the educational world must be handled in the light of the implications of the anticipated changes of family life. The agents of education must play a creative role. We must plan to develop new abilities of copability and creativity in our youth. Our youth should also spearhead to play a proactive role. In future, the youth should not be coerced to make uncomfortable compromises. Rather he should be vigilant and must develop the new capacities to steer through the changing circumstances of family life of tomorrow. The new inputs for these developmental programs for our youth must be provided today.

3. *Stage specificity and family life cycle*: I have observed that a few of our programs of family planning are being equated with family life education. It is not appropriate to assume that the contents and problems of family planning are the same as those of family life education. In fact, even within the framework of family life education, the problems will differ in their nature, direction and intensity, depending upon the specific stage of the cycle of the family life. For example, the following problems can emerge in Child Rearing Family.

* feelings of insecurity, isolation, rejection, * over protection-domination, lack of initiative, * overindulgence and interference leading to selfish and low frustration tendency, * tendency to rigidity for unrealistic moral standards, * anti-social aggressiveness due to faulty discipline habits, * sibling rivalry leading to hostility or regression, * internalizing unethical and undesirable social values, * confusion and self pity due to contradictory demands, * anxiety and tension due to married discord.

The problems in future life of youth will vary with the gradual advancement of the stages of the family life cycle. The eight stages of family life cycle are: beginning families, child bearing families, families with pre-school children, families with school children, families with teenagers, families with first child gone, families with no children around, and aging families where either of the spouses has gone away. Each of our future youth has to sequentially face the stage specific problems. I am afraid that we are not preparing our youth for identifying the stage specific problems, and then solving the unique problems in creative and divergent ways.

4. *Family Relationship* : The youth of tomorrow must also understand another area called intra family relationship and he must develop new skills. I find that our families are becoming nuclear. As a result, one expects that the family problems will decrease. But contrary to these expectations, our family problems are increasing. In fact some of the parents are handicapped to understand the intrafamily relationships. They are not equipped with the scientific basis of child rearing procedures. We must understand that ordinarily a nuclear family includes an interplay of eight important units of relationship : husband to wife, father to son, mother to son, father to daughter, mother to daughter brother, to brother, sister to sister, and brother to sister. The management of these relationships is both a science and an art. Are our educational institutions, family life associations, family planning organizations, parents organizations, human resource development units, and youth clubs addressing themselves to these eight units of relationships in the context of the increasing future needs of the youth ?

CONCLUSION

I conclude that school systems of India should introduce information based family life and sex education as one of the integral activities in its regular curriculum. Meanwhile, short term programs must be introduced in multiple forms. These short terms programs should be addressed to different types and levels of target groups. These programs can be run by the government and the voluntary agencies. Who will take the lead ?

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Relative Preferences of the Activities of Nehru Yuva Kendra as Perceived by Rural Youths

Pitamber Sharma¹ and P.N. Kalla²

INTRODUCTION

India being an agricultural country, a vast majority of the population (75.30 per cent) lives in rural areas. The rural conditions, therefore, must be improved in all aspects to change the national structure as a whole. According to Sangita (1991) a large part of our population (32.25 percent) falls between 15 to 35 years age group. The young people belongs to this age group are called as youths. We may define youth as "youth is a transactional period in the personality development and its bridges the years between childhood and adulthood".

The Nehru Yuva Kendras are primarily designed to organise out of school education and provide a forum at the district level. The kendras were started by Ministry of Education and Culture (now its name has been changed as Ministry of Human Resources Development) on 14th November, 1972. The basic aim of kendras is all round development of non-student youths particularly those who live in rural areas, with a giving them the opportunities to participate in the development process with the establishment of youth clubs.

Keeping this in view a study was undertaken with the following objectives :

1. To know the relative preference of activities of NYK by rural youths.

METHODOLOGY

The study was conducted in three panchayat samities in Churu district of Rajasthan. The nine villages (three from each panchayat samiti) were selected randomly. From each of the selected villages 10 youths of NYK were selected randomly. Thus in all ninty respondents were considered in the sample.

A structured schedules was used to collect informations through by personal interview method. The schedule deals with the relative preference of the activities of NYK

1 Pitambar Sharma—Ph.D. student of Department of Extension Education.

2 Dr. P. N- Kalla—Associate Professor, Department of Extension Education, Rajasthan Agricultural University, Bikaner Campus, Jodhpur

as perceived by rural youths. A list of all the activities prepared and then the responses of the respondents were recorded on a three point continuum scale 'Most prefer', 'Moderately prefer' and 'Least prefer' (weightage 3, 2, 1 were given for most prefer, moderately prefer and least prefer, respectively. The data were processed, tabulated and analysed. The major activities with sub-activities of NYK were identified follows in Table-1.

Table 1 : Major activities with sub-activities of Nehru Yuva Kendra.

S. No.	Name of major activities	Number of sub-activities
1.	Youth leadership training activities	15
2.	Non-formal and adult education activities	3
3.	Individual youth club project activities	13
4.	Vocational training activities	17
5.	Community welfare and sports activities	9
6.	Group project activities of youth clubs	7
7.	Social service activities	18

Findings and discussion : All the respondents were asked about each sub-activity of NYK and their responses were recorded on a three point continuum scale 'most prefer', 'moderately prefer' and 'least prefer'. The responses were collected, tabulated and presented in Table-2.

Table-2 : Relative preferences of various major activities with sub-activities of NYK by rural youths.

N=90						
S. No.	Major activities of NYK	Average percentage of rural Youth			Weight-age average	Rank
		Most preferred	Moderately preferred	Least preferred		
1.	Youth leadership training activities	30.37	34.14	35.25	1.94	I
2.	Non-formal education activities	34.44	31.85	33.70	1.89	II
3.	Community welfare and sports activities	30.02	29.49	40.46	1.84	III
4.	Individual projects of youth clubs	23.94	27.77	48.26	1.82	IV
5.	Social services activities	23.81	32.95	43.14	1.80	V
6.	Group projects of youth clubs	18.09	31.26	50.63	1.67	VI
7.	Vocational training activities	7.77	11.24	80.97	1.26	VII

A perusal of data presented in Table-2 revealed that youth leadership training activities were preferred as 'most preferred by 30.37 per cent of the respondents, whereas, 34.14 per cent of the respondents preferred as moderately and 35.25 per cent of the respondents preferred as least preferred to these activities. These activities given I rank on the basis of weighted average score by the respondents. The individual analysis among youth leadership training activities, national integration, adult education and self-employment and income generation activities were preferred as most preferred by the respondents on the basis of weighted average, while, science and technology, scientific attitude and scientific agriculture activities were considered as least preferred.

Non-format education activities were given II rank by the respondents with the weighted average score of 1.89. These activities were considered as most preferred by 34.44 per cent of the respondents, while, 31.85 per cent of the respondents considered them as moderately preferred and remaining 33.70 per cent youths considered. These activities as the least preferred, it means these activities as moderate to most preferred by the majority of respondents.

Further table shows that community welfare and sports activities preferred as 'most preferred by 30.02 per cent of the respondents, while, 29.49 per cent respondents preferred them as moderately and least preferred. Individual analysis among community welfare and sports activities, cultural and recreational, sports, development of social forestry and library and reading room facilities activities were preferred as 'most preferred by the respondents on the basis of weighted average, while cycling, hiking, mountaineering activities were least preferred by the respondents.

The table also indicates that the remaining activities were preferred as least preferred to moderately preferred by the respondents. The weighted average score obtained as the remaining activities range between 1.26 to 1.82 (rank IV to VII).

CONCLUSIONS

Based on the above findings of the study, the following conclusions were drawn :

1. Majority of the respondents were preferred as moderately to most preferred activities like as youth leadership training activities, non-formal education activities, community welfare and sports activities. The individual activities analysis indicates that calf rearing, dress making, field crop growing, sanitation, adult education, tailoring, national integration, nationality, self-employment and income generation, cleaning of wells, cultural and recreational library and reading room facilities, sports activities considered as moderately to most preferred activities of NYK by the respondents.
2. The rural youths were considered as least preferred activities like as poultry farming, cycle repairing, radio engineering, spray painting, watch repairing, chair making, ink making, cycling, hiking, mountaineering activities of NYK.

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Self Concept and Drug Addiction

S. H. Mahmud, Manzurul Huq and Shamim F. Karim
Psychology Department, University of Dhaka
Dhaka. Bangladesh

Our hunch that substance abusers might have low self concept was found to be true among the present sample. Personally perceived self appears to be most pronounced of all other types or self concepts. A large percentage of substance abusers do take drug to get relief from stress. Curiosity as a causative factor has been found to be the least important in this Bangladeshi sample.

To deal the problem effectively alternative to drug is required to be introduced in the society. Prevention program should also address psychological and social factors which influence human behaviour. Self esteem, self reliance and alienation are among the psychological factors prevention program should begin to address. Social skill programs should begin to include and combine affective education technique to resist influences to use drug and drug use information.

INTRODUCTION

The widespread abuse of drug has become human tragedy all over the world. Bangladesh has begun to take cognizance of and confront a growing problem of hard drug abuse only within the past few years. This increase in incidence of drug addiction has made it alarming to necessitate to look into the reasons of drug addiction behaviour.

As with most social behaviour, the etiology of drug abuse is complex, varying through time, by geographic region and by demographic characteristics. The underlying causes of drug abuse are as diverse as the population that they affect (Kozel and Adams, 1986). Peer pressure, curiosity, depression, hedonism, attempt to increase or improve performance, rebelliousness, alienation and a wide variety of other reasons have been cited as responsible for abuse of substances ranging from solvent to stimulants to opiates (Jones and Battifles, 1987).

Few researchers attribute to sociological factors, such as economic changes, political instability and an atmosphere of liberation. These conditions then cause a sense of insecurity and skepticism in youth which in turn lead them to use substance (Adler and Kandel 1982) attribute drug use to an individual's feelings of alienation. However, Wright and Moore (1982) study did not support alienation as a significant cause of drug abuse.

A number of studies on youthful drinking show a reinforcing role of peer group on drinking behaviour of its members and prospective members (Wandel 1984). There are findings which suggest that a poor parent child relationship characterized by parental rejections, lack of warmth and affection for the child, parent child conflict, lack of parental interest and nurturance may significantly contribute to substance abuse problems even at a later stage of life to some extent (Pandina and Schuele 1984, Barnes 1984, Belte and Barnes 1987).

A positive relationship between parent and child based on love and trust is an important determinant of the adolescent general satisfaction with life. Thus a poor child relationship produces a general dissatisfaction with life which in turn may lead to substance abuse. These unhappy adolescents use alcohol in an attempt to find a 'synthetic' joy or as an anesthesia to numb their painful feelings.

Gold and Mann (1982) did a study that showed defence against a derogated self image was a motivation for delinquent behaviour. Drug abuse was one of 16 types of delinquent behaviour listed in the study. They concluded that self image is easily distorted, thereby permitting a person to re-evaluate himself, such that a self image that is unconsciously belittled, passes into consciousness as adequate if not potent or laudable. Poe *et. al.* (1972) found non-abusers had a higher positive self concepts, reflected selves and ideal selves. Drug abusers had higher negative self concepts and reflected selves. If low self concept can be positively identified as a causative factor of drug abuse among addicts implications would be extremely important to help build up positive self concept in an individual at home, school and work place by parents, educators and society in general. Through this education and prevention process we can eliminate atleast one major cause of drug abuse in the society.

Thus it is necessary to see the magnitude of low self concept as a causative factor among the drug abusers. The present study is intended to examine the role of self concept along with few other factors which may lead a person to turn into addicted personality.

METHOD

Subjects : The questionnaire was administered to 100 drug addicts while attending a treatment program in a clinic in Dhaka, Bangladesh. To collect data from such a number of respondents the survey had to extend over twelve weeks since the number of addicts who are coming for treatment are very limited and secondly all of them are not

willing to respond. The respondents are under treatment program for varied length of time ranging from 1 to 12 weeks. Most of the subjects are male (excepting ten) ranging from 19 to 38 years, the average age being 29 years.

Measuring Instrument : Relevant data were collected by using a standardized schedule consisting of socio demographic information and causative factors related to drug addiction behaviour. Thirty two items were included among the causative factors representing five categories-self concept, social, pleasure seeking, intoxication and curiosity. In each category there were four items excepting self concept. In self concept category there are sixteen items representing four categories of self concept (four item in each type).

These are socially perceived self, personally perceived self, home self and school self. These items were determined by the opinions of experts in the field of substance abuse i.e. psychologist, psychiatrist and social workers. Items having interjudge agreement above 90% were taken into consideration. High validity of the instrument should be correlated with high reliability. Reliability of the instrument estimated by split half method on a sample of 20 individuals is 0.80.

Procedure : The respondents were interviewed in the clinics on the basis of the measuring instrument by a trained Research Assistant having background in psychology. He was briefly reviewed on the purpose of the study and mechanism to be followed to record the information of the drug addicts. He was also asked to take care while handling the addicts as in some cases they are psychologically disturbed. The clients were told that their names and addresses will not be recorded in order that their identity remain unknown and the information will be used only for research purpose to help out the people in future.

RESULTS

The causative factors were analyzed as to the percentage of times a response in each category were chosen. Percentages were worked out on two bases-on the basis of responses in four items and on the basis of atleast one item in each category (Table-1). The results clearly demonstrate that a low self concept is a common denominator as a causative factor of addiction behaviour in most of the cases (74%). The second leading causative factor benina drug addiction was to secure relief from stress situation (52%). It was than followed by factors like social (56%), intoxication (50%) and curiosity (28%). Of the four self concept personally perceived self found to be the most pronounced (76%) then followed by socially perceived self (62%), home self (46%) and school self (44%).

However, the trend of the result was slightly different when the percentages were worked out on how many subjects chose at least one response out of four from the said categories. Although factors like self concept ranked highest (88%) it was then followed by stress (82%), intoxication (66%), social (62%) and out of curiosity (34%) as causative factors.

Dividing self concept into four sub categories showed the following results : Personally perceived self-90%, socially perceived self-75%, home self-52% and school self-44%. The socio-demographic information reveal that addiction behaviour is found to exist in both the educated and the non-educated. The non educated group generally take local varieties of drug such as marijuana, hashish which are inexpensive whereas the educated respondents who are reasonably well off prefer to take western drugs such as heroin, cocaine, LSD etc. The marital status of the addicts are as follows : unmarried-60%, married-30%, and divorced-10%. Such descriptive statistical distribution pattern among the respondents indicate that when people are involved with some kind of responsibilities they do not usually turn into addiction personalities and spend money on addiction. It is of interest to note that the number of female addicts are far less than their male counterparts (10 out of 100 drug addicts). This is because of the fact that women folk here in Bangladesh are dominated by the male and have restricted movement in the society. As a result they are not exposed enough to drugs to develop addiction.

There was a limitation of such kind of study since there was no provision for the subjects to indicate any other causative factors outside those mentioned in the measuring instrument.

Studies along this line should keep a scope to indicate other causative factor if any which are not included in the measuring instrument.

DISCUSSION

A number of theories have been put forward to explain the addiction behaviour due to its complexity in nature. Empirical data in the literature also suggested that the causative factors related to addiction behaviour are diverse. From this study it appears that a low self concept was found to be a common denominator in most of the cases as a causative factor for turning into addicted personality. Samules and Samules' (1984) data also hinted that a low self concept inclines a person to abuse drug. Low self control among heavy drinkers was also observed by Lawson (1983).

Howkins *et.al.*, (1985) have found significant associations between substance use and level of self esteem. The study further revealed that the second leading cause of abusing drug is to overcome stress situation. To get high (intoxication) and to seek

pleasure also stimulates a person to drug abuse. The least important causative factor in the Bangladeshi sample appear to be curiosity. However, Samuel (1983) in a study on American adolescents found curiosity to be the most leading cause in drug abuse. It is perhaps due to the fact that American adolescents are exposed to drug at an early age and thereby start taking it early. At that age they do not really have a feel of addiction. Since addiction behaviour starts at much later stage, in the present Bangladeshi sample it appears that they take drug as necessity i.e. as an alternative for getting relief from stress situation they encounter in a chaotic society prevalent in Bangladesh.

Efforts should be made to help individuals not to get involved in addiction. To do so we suggest emphasis on preventive programs focussing the affective domain which will build up self esteem and enhance self concept.

It is necessary, therefore, to introduce a drug education program whose primary goal would be to assist an individual in developing a positive self concept. An individuals sense of inherent self worth and uniqueness will lead him to choose positive and viable alternatives in life rather than self destructive ones.

Dohner (1973) suggests for more attention to non chemical alternatives, search for self knowledge, or meaningful human relations, developing enduring values and having spiritual experience. One alternative is "Personal Awareness Development" where by a person must learn to aware of his own feelings, attitudes and perceptions and learn to evaluate the effect of his behaviour on others thereby improving his interpersonal awareness also. All these are also supposed to work as self corrective system for growth and enhancement of self concept.

Opportunities should also be created to make the youth participate in some sort of nation building programmes so that they feel worthy and proud members of the nation. This will generate an awareness of active belongingness to the nation and would prevent inclinations to drug abuse since it is generally considered to be an anti national act.

Rogers (1951) view also points to the significant role played by a jeopardised self concept in developing tension and other psychological disorders. According to him when the self image of a person is endangered by some aspect of his experience considered highly consistent to his self concept, the person may deny that experience at the expense of developing anxieties and other disturbing symptoms. It is not unlikely that such a person may eventually have recourse to drug addiction as an alleviatory measure. Rogers also asserts that an unconditional positive regard towards a person is a funda-

mentally necessary precondition to foster the development of a sound and healthy self concept as well as to salvage and redeem an already damaged one. Special community education programme should therefore be arranged for developing an atmosphere of positive attitude and regards towards the youth in general and the addicts in particular. Development of religious values in the society seems particularly pertinent for this purpose. Because religion upholds the dignity of man above all. It teaches to hate the sins but not the sinners. Religious values are also expected to eliminate the feeling of estrangement and meaninglessness by creating a deep sense of affiliation to God and His creation and providing a definite direction to one's life. Higher spiritual religious experience would also remove the anxieties due to frustrations and injury to self image by sublimating the needs and desires to a higher level to transcendental meaning.

To sum up it has been observed that drug abuse prevention programs initially focus almost exclusively on providing information on drugs and their effects. The assumption that persons would not use drugs if they knew the facts about their dangerous information alone quickly proved to be inadequate. Subsequent program began to address psychological and social factors which influence behaviour. Self esteem, self reliance, and alienation are among the psychological factors prevention program should begin to address. For example, education programs should focus on helping people develop decision making abilities and interpersonal skills in communication and self assertion. Program designed to provide with alternatives to drug use should begin to involve people in such alternatives as implementing community improvement projects or developing vocational skills to help them again a sense of worth and competence. These programs need not focus on drug abuse perse, based on the belief that, if the underlying dynamics could be modified, drug use could be prevented.

Other prevention programs should begin to focus on social factors related to drug use. For example sound programs may focus on peer, family and media influences to help people identify pressures to use drugs and to help them develop specific skills to resist these pressures. Community leaders should join together and form action groups to counter peer and environmental influences conducive to drug use. Prevention programs may begin to expand the scope of their programs in recognition of the multiple factors influencing drug use. Social skill programs should begin to include and combine affective education, techniques to resist influences to use drugs and drug use information.

The table shows that through the absolute figure of percentages vary for the same factor under the two criteria but the order of the factors according to their magnitude remain unchanged. This stabilizes their relative position furthermore.

Table-1 : Responses in all causative factors included in the measuring instrument. Percentages were worked out on the basis of (a) all responses in each category (b) one response in each category.

Causative factor	(a) Percentages on the basis of all responses in each category	(b) Percentages on the basis of at least one response in each category
Self concept	74	88
Stress	62	82
Intoxication	50	66
Social	56	62
Curiosity	28	34

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"Knowledge of Farmers About Different Chemical Fertilizers Available in the Market"

J. P. Gupta¹ and P. N. Kalla²

सारांश

राजस्थान के अलवर जिले की किशनगढ़ बास पंचायत समिति के 100 कृषकों का चयन किया गया। 100 कृषकों से उनके रासायनिक उर्वरकों की जानकारी के बारे में प्रश्न पूछे गये। सभी कृषकों का अध्ययन करने के बाद पाया गया कि अधिकतर कृषकों का रासायनिक उर्वरकों के बारे में औसत ज्ञान है। बहुत कम कृषक ऐसे हैं जिनका रासायनिक उर्वरकों के प्रति ज्ञान बहुत ज्यादा है।

INTRODUCTION

Knowledge is one of the important components of behaviour of an individual. It has been defined as the behaviour and test situations which emphasized the remembering either by recognition or recall of ideas, material or phenomena (Bloom, *et.al.*, 1956). Though the farmers are engaged with the farming practices for quite a long period even then they acquired a little part of the existing knowledge about the production technology. Fertilizer is as important input for increasing crop production. So knowledge about different chemical fertilizers available in the market should be needed to the farmers. So that farmer can use suitable fertilizer at right time in appropriate quantity to achieve good yield.

In view of this the present study was under taken with following specific objective—

- (i) To find out the knowledge level of farmers about different chemical fertilizers available in the market.

¹ J. P. Gupta, Ph. D. Scholar (Extension), SKN College of Agriculture, Jobner.

² Dr. P. N. Kalla, Associate Professor, Department of Extension Education, SKN College of Agriculture, Jobner.

METHODOLOGY

The present study was conducted in Kishangarh—Bas panchayat samiti of the Alwar district of Rajasthan. Ten villages were selected with the help of simple random technique from this panchayat samiti. Out of these villages ten farmers were selected from each village by simple random technique. So it makes total no. of respondents 100.

The knowledge level of farmers regarding fertilizer was measured with the help of a test already developed by Sethy (1978). The question in a test were then further split into such question comprising a total of 38 in all. The questions were dictiotomous type and thus, the interview was asked to reply in either of the categories in Right/Wrong, Yes/No. One mark was given for every right answer and zero for wrong answer.

Findings :

Table-1 : Level of Farmers Knowledge about Chemical-Fertilizer.

Knowledge Score	Number of farmers	Percentage	Rank
Less than 12·49 (0—12)	16	16	III
12·49 to 18·49 (13—18)	65	65	I
More than 18·49 (19—38)	19	19	II

The data in Table-1 revealed that the farmers differed very much in their knowledge about chemical fertilizers. Majority of the farmers (*i.e.* 65 per cent) had knowledge score ranging from 13 to 18 followed by 19 per cent who scored between 19 and 16 per cent of the respondents fell under the range of 0 to 12.

CONCLUSION

It was observed that 65 per cent of the farmers were in medium knowledge levels, followed by 19 per cent of the farmers in high knowledge level and 16 per cent of the farmers in low knowledge levels. It leads to the conclusion that the farmers in general had moderate knowledge about the fertilizers.

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Hostility in Cancer Patients

Dr. Verma K. B.*, and Dr. Asthana M.**

The present study aimed to measure hostility in cancer patients. The sample consisted of 50 cancer patients from Cancer Research Institute, Varanasi and 50 normal subjects served as control group. Both groups were matched on age (35—62 years), Sex and education. Hostility scale by Roma Pal and Tasneem Naqvi (1982) was administered to the sample individually. The results revealed that cancer patients scored significantly high on hostility scale in comparison to control group.

INTRODUCTION

The concept of hostility has been considered as a personality trait and a personality style. Clinical psychologists considered it as the 'Hostility-Construct'—(Dellard, Doob, Miller, Mowerer and Sears, 1939). Dallard *et.al.*, (1939) proposed the 'frustration-aggression-hypothesis' which stimulated much interest in the study of hostility construct. They emphasised aggression as a consequence of frustration. Although, hostility differs from aggression because aggression is concerned with any overt action which is intended to hurt physically or verbally; whereas hostility is a wish for a specific class of goal to cause pain, distress or anxiety to another person, or a surrogate of that person.

Hostility has been considered as an internal or emotional reaction of anger, enmity of resentment directed toward a object, person or occurrence (Rohner, 1980). Hostile person may verbally nag, scold and ridicule toward concerned person or object. His behaviour includes the characteristics of crusing, depreciating tone of voice, saying

* Lecturer, Deptt. of Psychology, Sri Agrasen Kanya P. G. College, Bulanala, Varanasi.

** Head, Deptt. of Psychology, Sri Agrasen Kanya P. G. College, Bulanala, Varanasi, U. P., India (221001).

thoughtless, unkind and cruel things, and physical hurts. The person to whom hostility is directed, is the one who is believed to be the thwarting agent, the one who threatens the valued standards.

Buss-Durkees (1957) have considered the eight dimensions of hostility—(1) Assault, (2) Indirect hostility, (3) Irritability (4) Negativitism, (5) Resentment (6) Suspicion (7) Verbal hostility and (8) guilt.

Cancer is one of the most dreaded diseased for many years. A diseased person adopts a special personality pattern and characteristics. What are the personality pattern and personal characteristics of such people, who suffer from cancer, has been one of the important issues for researchers. Researchers who have investigated the emotionality and other personality characteristics of cancer patients are Kissen (1965), Brawn (1969), Weinstock (1977), Beek (1979), Acterberg and others (1979), Srivastava (1988) and Srivastava (1991). In attempt to study emotionality of cancer patients, we aimed to measure hostility of cancer patients.

METHODOLOGY

50 Cancer patients with diagnosis of lung, prostate and multiple carcinomas from Cancer Research Institute, Varanasi, and 50 healthy normals (served as control group) were taken in the present study. The age-range of the sample was from 35 to 62 years with a mean age of 46.8 years. Both groups were matched on sex, age, education and SES.

Hostility scale by Pal and Naqvi (1982) was administered individually to the total sample.

RESULTS AND DISCUSSION

Table 1. Significance of difference between mean hostility scores of cancer patients and normals.

Groups	N	M	SD	<i>t</i>	<i>p</i>
Cancer Patients	50	79.5	26.1	3.11	.01
Normals	50	65.4	18.5		

$df=98$

From the above table it is clear that cancer patients score significantly high on hostility than their normal counterparts.

The construct of hostility which the system purports to measure refers to an individual's general and presumably stable negative attitudes and feelings towards the world around him. These attitudes and feelings are often repressed in our culture and find expression in distorted attitudes.

The results on hostility obtained by Hostility scale (Pal and Naqvi, 1982) are consistent with the findings of researches which have sought to identify the psychological characteristics of cancer patients and have frequently noted in them the inability to express emotions, specially that of anger (Bacon *et.al*, 1952, Perrin and Pierce, 1959; Greer and Morris, 1979; Dottore, 1980; Wirshing *et.al*, 1982; Grossarth and Eysenck, 1991). The finding of the present study are also supported by the study of Srivastava (1988) in which she found the mean hostility scores for three cancer groups (prediagnosed, diagnosed, and treated) were significantly higher than the control group.

The results of the present study show that the mean hostility score of cancer group is significantly higher than the control group. A possible explanation for the cancer patients, higher hostility score may be that the expression of the emotion of anger is usually not allowed in the civilized world, the undischarged anger may linger on in the form of hostility and may produce physical disorders and ailments like ulcers, cancer and other such disease. The denial and repression of emotions leads to self-alienation, a fusion of regenerative and creative drives with hostile, guilty and depressive emotions; and that tumor growth can be a psychological efforts to regenerate in the face of frustration, guilt and despair (Bahanson and Bahanson, 1966).

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A Factorial Study of School Adjustment of Female Adolescent Students

Pushpa Gautam

Deptt. of Education, H. P. University, Shimla-5

The study is an attempt to factor analyse the School Adjustment Inventory (Bhagia, 1967) having five distinct areas of adjustment for redefining the concept of school adjustment. On the basis of the data, collected from a sample of 200 adolescent girls studying in Xth grade, on adjustment in terms of (i) academic, (ii) social, (iii) school administration, (iv) teachers and personal areas, three factors emerged in the factor analysis. Hence, it was concluded that the school adjustment can be measured more comprehensively by developing an Inventory having test items pertaining to (i) adjustment in academic sphere (ii) social adjustment and (iii) adjustment with school administration areas of adjustment.

INTRODUCTION

Adolescence is a developmental period during which a growing person makes a transition from childhood to adulthood. It is a time of striking change and is considered a unique period (Hurlock, 1980). In this period adolescents are expected to attain physical, mental and emotional maturity. The most remarkable characteristic of adolescence is prone to change, because of which he has to adjust in different areas like home, health, social, emotional and school. Though very few studies have been conducted in the area of adjustment (Doss, 1980), the major findings that emerge reveal a greater incidence of adjustment problems only in children.

Gupta M. and P. Gupta (1980) identified some problems related to social and personal adjustment to school. Goswami (1980) developed an adjustment inventory for assessing personality adjustment of adolescent girls. The study reports that the adolescent girls encounter maximum problems in the areas of emotional, mental, school, study and

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home adjustment. Physical adjustment and sex adjustment areas were found to be the least problematic. Some other adjustment inventories have been developed to measure personal and social adjustment in the area of neurotic tendencies, feelings of inferiority, guilt, personal worth, attitude towards future, home, school and sex adjustment (Reddy, 1964); and home, health, social, emotional and school or college (Saxena, 1962). Similarly, Bhagia's (1967) Adjustment Inventory measures five aspects of school life viz., academic matters, school mates, teachers, school organisation and school environment in general and self.

Though the study of adjustment problems during adolescence has continued to be a favourite topic of research, the quality of contribution has not kept pace with the quantity. The definition of the construct "adjustment" itself has been as artifact of its measurement, the tools of the study are limited to self-reporters and hence the present study aimed at factor analyzing the areas of school adjustment for its construct validity, with special reference to adolescent girls.

Objectives of the Study : 1. To set up a correlation matrix with the help of scores obtained in the different areas of the school adjustment among high school female students, namely :

(i) Academic Adjustment (*A*), (ii) Social Adjustment (*S*), (iii) Adjustment with school Administration (*G*), (iv) Adjustment with Teachers (*T*), (v) Personal Adjustment (*P*).

2. To rotate the reference axes after extracting the centroid factors of the different adjustment areas and interpret these factors psychologically.

METHOD AND PROCEDURE

Sample : A sample of 250 female adolescent students studying in Xth grade was drawn at random from all the girls' schools situated in Shimla City.

Tool : "The School Adjustment Inventory" constructed by M. N. Bhagia (1967) was used for the collection of data pertaining to the main aspects of school life viz: academic matters, school mates, teachers, school organisation or school environment in general and self.

RESULTS

In the present study the investigator used the technique of "Factor Analysis" for the analysis of data. First of all, the correlations between the scores were computed which the students had obtained on different adjustment areas as *A*, *S*, *G*, *T*, and *P*,

The co-efficients of correlation were arranged in the Correlation-Matrix given in the following Table :

Table-1 : Correlation Matrix.

	Areas				
	A	S	G	T	P
(Academic Matters) A	X	.64	.64	.87	.70
(Social) : S	.64	X	.48	.53	.70
(School Organisation) :	.58	.48	X	.64	.55
(Teachers) : T	.87	.53	.64	X	.66
(Personal or Self) : P	.70	.70	.55	.66	X

After obtaining the correlation matrix "centroid method" for factorial analysis was used. The investigator extracted 1st, 2nd, 3rd and 4th centroid factors. The analysis was stopped after the extraction of 4th factor because it satisfied the criterion given by Guilford and Lacey (1947).

The "Centroid Matrix" giving the values of first, second, third and fourth factors are given in the Table-2.

Table-2 : Centroid Matrix.

Area	Factors			
	a_1	a_2	a_3	a_4
A	.901	.139	.248	-.094
S	.751	-.371	.071	-.065
G	.712	.084	-.250	.119
T	.879	.344	.131	.127
P	.815	-.250	.083	.148

The investigator rotated the "Centroid Matrix" by the "Method of Extended Vectors" because all the values of the first factor loading were positive. The rotated "Factor Matrix" and Intercorrelations of "Reference Axes" are given in Table-3 and Table-4 respectively.

Table-3 : Rotated Oblique Factor Matrix with Unextended Vectors.

Area	Factors		
	I	II	III
A	0.465	0.234	0.127
S	-0.003	0.544	-0.011
G	0.004	0.042	0.339
T	0.490	0.001	0.002
P	0.090	0.464	-0.006

Table-4 : Intercorrelations of Reference Axes.

	A ₁	B ₁	C ₁
A ₁	1.000	0.077	0.703
B ₁	-0.077	1.000	-0.496
C ₁	-0.703	0.496	10.000

The following observations were made on the basis of the results given in the tables :

The different aspects of school life and adjustment, namely, academic matters, school mates, teachers, school organisation and school environment in general and self are significantly and positively related to each other.

The five aspects of school adjustment after factor analysis got reduced to three common factors, which were named according to the loadings, i.e. "Factor of Adjustment in Academic sphere," "Factor of Social Adjustment," "Factor of Adjustment with school Administration" found to be related with each other. The "Factor of Adjustment in Academic Sphere," measures satisfaction with regard to academic sphere including the teacher and his total personality. "Factor of Social Adjustment," relates to "self" and to inter-personal relationship which are social in nature. The third factor i.e., "Factor of Adjustment with School Administration", refers to adjustment in the general environment of school alongwith general school administration.

CONCLUSION

In the light of these observations, it was concluded that the construct of school adjustment should be defined in terms of adjustment in academic sphere, school adminis-

tration and social adjustment developing an Adjustment Inventory with much more comprehensive approach towards measuring school adjustment among adolescent girl students.

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Minor Industrial Accidents and Major Psychological Trauma : Cryptotrauma—A Clinical Perspective

***M. M. Bagali and Dr. N. A. Ganihar**

Accidents may often have been far more traumatic psychologically and emotionally than appears to be the case, at first sight. Attention is drawn to such traumatic condition.....cryptotrauma and has been illustrated with four clinical vignettes. Emphasis is placed on the need for pains taking analysis of the accident in all its details. Without such careful investigation, "Post traumatic stress disorders" can easily be over looked, since patients tend not to offer the information spontaneously.

INTRODUCTION

The consequence of accidents are major personal medical, social, legal and economic problems [Lukose, 1983]. Accidents are the major cause of post-traumatic stress disorders in civilian life. In order to diagnose PTSD, one expects the patient to have experienced an overwhelming stress, i.e., a challenge to coping resources which is far beyond normal experience. This overwhelming stress implies first, a sense of impending and inevitable death, secondly, the expectation of dying in a most unpleasant manner, and thirdly, total loss of any sense of mastery OR capacity to influence the course of events.

While it is apparent that the persistence of symptoms following an accident must be due to many factors, one which is frequently overlooked is the existence of what Keiser (1968) has described as a "traumatic neurosis". This syndrome follows accidents in which the victim experience the threat of annihilation and is characteristics in the acute phase by a variety of symptoms such as nightmares, reliving the experience, anxiety, fatigue, sensitivity to noise and dizziness. In the chronic phase, there is personality change

*Research Scholar, Department of Studies in Social Work, Karnatak University, Dharwad ; researching on the topic entitled "INDUSTRIAL ACCIDENTS"; major interest are applied psychology, safety, job satisfaction and accidents
Correspondence concerning this article should be addressed to M.M. Bagali.

with irritability and the development of any of a number of neurotic symptoms and syndromes [Vernor, 1945 ; Krenn, 1957 ; Guarino, *etal.* 1957 ; Issay Pilowsky, 1991].

The purpose of this communication is simply to draw attention to the fact that the true nature of the accident from the patients perspective is often overlooked. The accidents may often appear to be quite minor, and indeed leading to minimal bodily injury, and yet leave the patient psychologically disabled because of the patients subjective experience of the accident which is not immediately apparent. There are a number of reasons why the patient may not spontaneously offer details of the accident which would allow one to appreciate its folk details. First, the patient may not think that these details are relevant to the doctors requirements. Secondly, he may be ashamed of his behaviour under the stress and may find it incompatible with his self image of a complement adult. Thirdly, he may be denying OR depressing these memories because of the painful and unacceptable emotions and ideas which are associated with them. Forthly, he may not mention them because the doctor shows no interest in knowing about the details of the accident. Fifthly, the doctor may show an active disinterest in the details and appear to be discouraging the patient from describing them. This may be due to many reasons : the doctor may be upset by such details and if not able to cope with them, OR he may wish to inhibit "exaggeration" in cases where compensation is an issue. This will depend to some extent on which party he is advising.

The following vignettes are reported to illustrate the sorts of accident experience which patients only revealed after the most detailed and persistent questioning.

Case 1. A railway worker in his forties was living in a converted carriage while working on the outskirts of a country town. At dusk he walked near the tracks looking for a water tap, when he fell head first into a hole. Apart from some musculoligamentous damage, he suffered no major physical injury, but months later was still complaining of pain and disability. Until pressed, he did not report that at the time of the fall, he found himself lying head down in the hole in the dark with an excruciating pain in his neck. He made sounds with difficulty, but no one came. He felt sure that he had broken his neck and might die before he was found.

Case 2. A young mining engineer in his twenties was supervising excavations underground when, in his words, he was "struct on the head by a hopper". He was not unconscious at any time, and apart from a headache was not much incapacitated, although he sustained a fractured zygoma. Further questioning revealed that the hopper weighed many tons and had pressed his head against a fixed steel railing, locking it there while gradually crushing it under its enormous weight. He remembered hearing the bones in his head cracking and wondering how much more he could take before his skull burst. Fortunately, he was released by a workmate and removed to safety.

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Case 3. A man in his forties slipped in a workshop while carrying a can of liquid to his machine. He reported that he fell to the ground dropping the can (and spilling its contents), experienced a sharp pain in his lower back and was unable to move. Until pressed, he made absolutely no mention of the fact that, as he lay on the floor, he fully expected that the spilled liquid would be ignited, that he would be engulfed in flames and the highly flammable gases in the workshop would explode. A few months earlier a workmate had been badly burned as the result of an accident in the same workshop.

Case 4 : A man in his forties was carrying out maintenance work on machinery which was used for crushing rocks. While he was between the crushers the machine started turning and fortunately for him the switch was turned off just in time. At first he said no more than this, but on closer questioning it became clear that this was a horrifying experience and, as he said, if someone had not switched off the power "I would have been minced up". Many other examples could be given, but these should suffice to make the point that the psychological and emotional trauma associated with an apparently "trivial" accident, can easily be over looked, given the patients tendency to suppress the more horrifying aspects of the experience, and the doctors frequent failure to probe assiduously for them. Until these facts are uncovered, it is very difficult to understand the patients response to the incident, and not at all unusual for him to be regarded as exaggerating [Sridhar, on Biorythms 1990; Pancheri, 1947; Parker, Jr. J. W. 1933].

It should be emphasised that obtaining such information requires a painstaking and unhurried leading of the patient through every detail of the accident and the physical and social setting. The patients perceptions and thoughts must be elicited on a second by second basis : what was happening, what he thought might happen and what others thought, based on their statements and reactions. By the end of the interview, the interviewer should have in detailed and vivid picture of the work setting and the patients experience.

Although managing such patients is difficult and requires a multi-disciplinary approach, the chances of any kind of success are greatly reduced, if the health professionals involved do not know the true nature of the victims accident experience [Ralph, K. White, 1948]. It seems paradoxical indeed, that so often it is the accident itself about which least is known by those attempting to diagnose, manage (OR indeed assess compensation for) the consequences of an accident. With the advent of more specific psychological treatments for PTSD, cryptotrauma [mentioned because of its hidden nature], can no longer be over looked and clinicians will have to provide time for the careful examination of patients so that the folk nature of the accident can be elucidated. The key to achieving this lies in the use of a meticulously detailed interview built on the foundation of good doctor patient rapport.

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Advance Organizer Model : Does it Facilitate Retention ?

Dr. N. N. Pandey

Faculty of Education Banasthali Vidyapith, Rajasthan-304022

INTRODUCTION

Ausubel advocates expository learning at a time when most educational theorists are challenging the validity of these methods. He considers the acquisition of knowledge as an essential goal of schooling. His theory of meaningful verbal learning is applicable to situations where the teacher has to play the role of lecturer. This helps teachers to convey large amount of information as meaningfully and efficiently as possible. He thinks advance organizers as means of strengthening cognitive structure and enhancing retention of new information (Joyce and Weil, 1985).

Some studies (Ausubel, 1960; Kuhn and Novak, 1971; Lawton, 1977) have found that advance organizers generally facilitate learning and retention, however, studies by Barron (1971), Clawson and Barnes (1973), Jerrolds (1968) and Lucas (1973) found little or no support for the theory. This study is a further exploration in this direction.

METHOD

Design : The study was experimental in nature. It used pretest-post test control group design. One of the groups was taught through AOM and the other through the TTM.

Sample : Initially, the sample of this study consisted of 86 B.Ed. girl students of Banasthali Vidyapith. However, for the final analysis, only those students were considered who were present during the administration of the tests and also participated in the teaching-learning process. Thus, the final sample got reduced to 52 out of which 28 were in the experimental group and 24 in the control group.

Data Collection : Intact classes were taken and one of the groups was taught through AOM and the other through TTM. Both groups were taught the same topic "Intelligence and its measurement" for eight periods. Care was taken that the treatment time be equal for both the groups. At the end of the experiment, the criterion test (constructed by the investigators) was administered. The reliability of the test was found to be 0.73. The same test was administered after a gap of 30 days to study retention.

Statistical Analysis : Data were analysed using one-way analysis of covariance. Achievement in educational psychology at the second administration was the dependent variable and achievement just after the teaching was taken as covariate.

RESULTS AND DISCUSSION

(i) *Effect of Methods of Teaching on Retention :* In order to study the effect of methods of teaching on retention, one way ANCOVA was employed on total scores. The results are presented in Table-1.

Table-1 : Summary of ANCOVA for Total Scores :

Source of variation	df	SS y. x	MSS y. x	F	P
Among groups	1	8.56	8.56	1.71	>0.05
Within groups	49	246.18	5.02		

Table-1 reveals that F-ratio is not significant which means that AOM and TTM are equally effective as far as retention of educational psychology is concerned.

(ii) *Effect of Methods of Teaching on Retention of Knowledge :* Comparative study of AOM and TTM on retention of knowledge aspect of educational psychology was done by analysing the data concerning knowledge aspect through ANCOVA. The results are shown in Table-2.

Table-2 : Summary of ANCOVA for Knowledge Scores.

Source of variation	df	SS y. x	MSS y. x	F
Among groups	1	0.19	0.19	<1
Within groups	49	106.35	2.17	

Table-2 shows that F-ratio is less than one. This means that AOM and TTM equally facilitate the retention of knowledge of educational psychology.

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(iii) *Effect of Methods of Teaching on Retention of Understanding*: Here also, data concerning understanding aspect was analysed through one-way ANCOVA. The results are depicted in Table-3.

Table-3 : Summary of ANCOVA for Understanding Scores.

Source of variation	df	SS y.x	MSS y.x	F
Among groups	1	1.28	1.28	<1
Within groups	49	133.41	2.72	

It is evident from Table-3 that *F*-ratio is less than one which means that AOM and TTM are equally effective as far as retention of understanding is concerned. The findings of this study are not in tune with the studies of Ausubel (1960), Kuhn and Novak (1971) and Lawton (1977). However, it is corroborated by the findings of Barron (1971), Lucas (1972) and others. In AOM the learning material is presented in a well organised and logical manner and the advance organizer is referred time and again so that the learned material becomes clear and stable. The students learn to analyse the learning material, transform the new knowledge and apply it creatively in novel situations. All these things combined together should have facilitated the retention of learned material. But this study has not revealed such a thing. One reason for such a result may be that the students were exposed to AOM for eight periods only and it is quite possible that the effect of AOM might have been diluted in the span of thirty days.

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Effectiveness of Computer Assisted Instructions for Teaching Singulars and Plurals at IInd Grade

Sanjay L. Mahajan

Seva Sadan's College of Education, Seva Sadan Marg
Ulhasnagar-421003 (Bombay)

At present the teaching-learning process is dominated by the teacher's activities. It means, the teacher is active in the class-room and the students most of the time are passive. This has led to dissatisfaction both among teachers and students. Therefore, the paper intends to study the effectiveness of Computer Aided Instructional material for teaching Vowels and Consonants at IInd standard in terms of achievement. The sample comprised of two groups, each made up of thirty second-grade students, were matched on the basis of IQs. Experimental group was selected from University Innovative School, Indore and Control group was selected from Bright school, Indore.

The paper-pen test was administered to control group after teaching Singulars and Plurals through traditional method. Then the next day the Computer Assisted Instructions on Singulars and Plurals was administered to experimental group and then the same paper-pen test was administered to experimental group. The study reveals that the 't' value of 6.94 exceeds the t critical value of 2.462 at the .05 level at 29 degrees of freedom. This shows that the CAI was effective for teaching Singulars and Plurals.

INTRODUCTION

At present the teaching-learning process is dominated by the teachers' activities. It means, the teacher is active in the class-room and the students most of the time are passive. This has led to dissatisfaction both among teachers and students. Researchers have attempted to design the teaching learning process in such a way so that it is

dominated by the students rather than the teacher. Because of this, different types of instructional materials were developed. These instructional material although made the child an active learner but the instruction was not child centered. It means each child is different and therefore a different type of instructional material be developed with the help of which the child can learn to its maximum capacity. This deficiency to a great extent can be met with the help of the use of computers in teaching-learning process. The computers have vast memory, speed, graphics, animation facility and can be used in any manner one likes. It can work without any error. Technological development, application, and accessibility have produced a surge of interest among early childhood professionals and clients concerning the micro computer's potential role in preschool and early education. Since then a flurry of research has endeavored to address Kelman's [1] concern. Barnes and Hill [2], Cuffaro [3], and Elkind [4] have warned that young children should not be involved with microcomputers.

Objective : To compare the mean achievement of the students taught Singulars and Plurals through Computer Assisted Instructions with the mean achievement of the students taught Singulars and Plurals through traditional method.

Hypothesis : There will be no difference between the mean achievement of the students taught Singulars and Plurals through Computer Assisted Instructions with the mean achievement of the students taught Singulars and Plurals through traditional method.

Sample : Two groups, each made up of twenty second-grade students, were matched on the basis of IQs. Experimental group was selected from University Innovative School, Indore and Control group was selected from Bright school, Indore.

Format of CAI : For the development of the software, screen was divided vertically into two parts. Left part was displayed with all the Rules for making singular to plural and right part was displayed with questions on fill-in the blanks, i.e. Which vowel is missing in the below given word ? Students were asked to press the appropriate rule number key from the left side of the screen. There were twenty fill-in the blanks. This CAI was providing ample opportunities for students to respond to fill-in the blanks based on rules displayed on the left side of the monitor. CAI was also providing feedback as to the correct/incorrectness of each response made. There were number of opportunities in the software like one can choose problem according to his/her ability, and can go forward and backward. If students are not permitted to make an ample number of responses within a software package, the program becomes like a lecture or a page from a text-book which presents subject matter in a one way street communication.

This software program was containing quality sequence i.e. simple to complex, according to maxims of teaching. With appropriate sequential learning the students can experience a high rate of success. Each new response was based on previously acquired learning. In a step by step procedure, students learn new subject matter which is related directly to what was learned previously. A high rate of success needs to be in the offing for each students when CAI is in the offing. This software content was on the understanding level of students. Content too difficult makes for frustration on the part of students. Subject matter which is too easy lacks challenge and boredom may well set in for students. New content must be in the offing and yet the subject matter is attainable by learners. Content presented on the monitor was accurate. Incorrect ideas eliminated from software packages.

Much care was taken to ensure that the CAI covered every part of the unit Singulars and Plurals, and which varying in type, could not be answered without understanding.

Procedure of Data Collection : The paper-pen test was administered to control group after teaching Singulars and Plurals through traditional method. Then the next day the Computer Assisted Instructions on Singulars and Plurals was administered to experimental group and then the same paper-pen test was administered to experimental group. Students read through all the instructions and registered their responses through keyboard according to the instructions given to them. Students could not get the next question unless give the correct response. Scores were collected and analyzed.

Data Analysis : CAI on Singulars and Plurals was used to teach the experimental group and the control group was exposed to a conventional teaching method. Using the coefficient of correlation, the below shown formula for 't' test was used to analyze the data.

X (Experiment)	C (Control)
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$N_1=30$	$N_2=30$
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$S^2_1=37.21$	$S^2_2=36.10$
---------------	---------------

$\bar{X}_1=44.80$	$\bar{X}_2=49.10$
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$r=+.80$	$df=29$
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$f=37.21/36.10=1.03$ (Variances are homogeneous)

$t=6.94$

t value of 6.94 exceeds the t critical value of 2.462 at the .05 level at 29 degrees of freedom. This shows that the CAI was effective for teaching Singulars and Plurals and the null hypothesis may be rejected.

DISCUSSION

The Computer Assisted Instructions for teaching Singulars and Plurals was found to be effective in terms of achievement of students belonging to experimental group than that of control group at the .05 level. This finding is supported by Paul (1985), Francis (1986), Barbara (1987), Carroll (1987), Henry (1987), Johnson, Johnson and Stanne (1986) Hugh (1988), and Woodward, Carnine and Gersten (1988).

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Future Family Life and Sex Education

Dr. B. K. Passi

Professor & Director

Institute of Education, Center of Excellence
Devi Ahilya Vishwavidyalaya, Indore

INTRODUCTION

1. *Vietnam Experiment : Population Education* : Recently I visited Vietnam for a research consultancy in the area of "Family Life and Sex Education in Vietnam". I worked for a training workshop for their mobile teams. We had developed an evaluation design and prepared instruments for family life and sex education. The UNESCO Bangkok, and the National Institute of Educational Sciences of Hanoi have done a fairly good job in this area. I was impressed by the kind of interest shown by the students, teachers, and other participants about family life and sex education. We had futuristic discussions around the following topics related to family life and sex education :

*family : structure, relations, *behavior in the family, *Parental responsibilities, *responsibilities of children, *human sentiments, *friendship, *love, *marriage, *family management, *marriage and family law, *problems of young married couples, *care of old parents.

The topics related to sex education were :

*sex and differences between the sexes, *puberty, *physical changes during puberty, *psychological changes during puberty, *male reproductive organs, *female reproductive organs, *mensuration *fertilization and fetal development, *scientific basis of contraceptive methods, *sexually transmitted diseases, *teenage pregnancy and its consequences, *primary health care.

Vietnam has introduced family life and sex education program in selected high schools. The teachers, students, and administrators have appreciated this program. I had interviewed school going boys and girls, teachers, and administrators. I asked, "Why do you like sex education program having hard information about delicate aspects of human

life?" Regarding sex education, I was surprised to hear answers from the teenage boys and girls. They reported that sex education is vital to human life and its knowledge would be useful. They further asserted that if schools fail to educate us, we would have to search this information from quacks and pornography. We would pay a heavy price in our future lives. We must not allow these quacks to influence our lives. They said "School is an authentic and sensible institution for providing vital information required by us in different aspects of our lives."

I further wanted to know from the teachers at Hanoi if sex and family life education could be provided through the study of the reproductive systems of plant and animal lives. They were quite pungent about the validity of this indirect approach of sex education. They were very certain about the inadequacy of this approach. The teachers reported that one can stretch the extended relationship between the reproductive processes of plant life and human life. However, they argued that one cannot stretch this point of establishing relationship between biological description of sex education on one side, and the family life education on the other. They believed that family life education is primarily a social phenomenon. It has an exclusive uniqueness and importance to human life. It should not be overlooked by mistake or design.

Further, I asked myself: "Shall we in India, be able to introduce hard information about family life and sex education in near futures?"

2. *Changing Scenario of Family Life*: We find the changes are coming fast. These changes can create disaster if we fail to act on time. Our youth of tomorrow must become a proactive thinker rather than a reactive agent. Therefore, we must find out:

Traditional Form of family

Shifting Form of family

* extended family	to portable family
* sexagenarians	to childlessness
* child rearing by women	to child rearing by man
* liking to give birth to children	to liking to adopt children
* heterosexual marriage	to homosexual marriage
* peripheral love	to justification love
* permanent family life	to separated family life
* conventional arranged marriage	to temporary marriage
* liking for life long partners	to liking to be single
* marriage with equal age	to marriage with unequal age

"What type of social and technological futures are likely to influence the anticipated family life of our youth?" It is relevant to quote Toffler who asserts that the following significant changes are taking place in the area of family life?

If the above mentioned anticipated changes are going to materialize then we must act fast. These changes have a variety of implications in various walks of life. The legal world, the mass media, the economic world, the recreational world, the medical world, and the educational world must be handled in the light of the implications of the anticipated changes of family life. The agents of education must play a creative role. We must plan to develop new abilities of copability and creativity in our youth. Our youth should also spearhead to play a proactive role. In future, the youth should not be coerced to make uncomfortable compromises. Rather he should be vigilant and must develop the new capacities to steer through the changing circumstances of family life of tomorrow. The new inputs for these developmental programs for our youth must be provided today.

3. *Stage specificity and family life cycle*: I have observed that a few of our programs of family planning are being equated with family life education. It is not appropriate to assume that the contents and problems of family planning are the same as those of family life education. In fact, even within the framework of family life education, the problems will differ in their nature, direction and intensity, depending upon the specific stage of the cycle of the family life. For example, the following problems can emerge in Child Rearing Family.

* feelings of insecurity, isolation, rejection, * over protection-domination, lack of initiative, * overindulgence and interference leading to selfish and low frustration tendency, * tendency to rigidity for unrealistic moral standards, * anti-social aggressiveness due to faulty discipline habits, * sibling rivalry leading to hostility or regression, * internalizing unethical and undesirable social values, * confusion and self pity due to contradictory demands, * anxiety and tension due to married discord.

The problems in future life of youth will vary with the gradual advancement of the stages of the family life cycle. The eight stages of family life cycle are: beginning families, child bearing families, families with pre-school children, families with school children, families with teenagers, families with first child gone, families with no children around, and aging families where either of the spouses has gone away. Each of our future youth has to sequentially face the stage specific problems. I am afraid that we are not preparing our youth for identifying the stage specific problems, and then solving the unique problems in creative and divergent ways.

4. *Family Relationship*: The youth of tomorrow must also understand another area called intra family relationship and he must develop new skills. I find that our families are becoming nuclear. As a result, one expects that the family problems will decrease. But contrary to these expectations, our family problems are increasing. In fact some of the parents are handicapped to understand the intrafamily relationships. They are not equipped with the scientific basis of child rearing procedures. We must understand that ordinarily a nuclear family includes an interplay of eight important units of relationship: husband to wife, father to son, mother to son, father to daughter, mother to daughter brother, to brother, sister to sister, and brother to sister. The management of these relationships is both a science and an art. Are our educational institutions, family life associations, family planning organizations, parents organizations, human resource development units, and youth clubs addressing themselves to these eight units of relationships in the context of the increasing future needs of the youth?

CONCLUSION

I conclude that school systems of India should introduce information based family life and sex education as one of the integral activities in its regular curriculum. Meanwhile, short term programs must be introduced in multiple forms. These short term programs should be addressed to different types and levels of target groups. These programs can be run by the government and the voluntary agencies. Who will take the lead?

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Relative Preferences of the Activities of Nehru Yuva Kendra as Perceived by Rural Youths

Pitamber Sharma¹ and P.N. Kalla²

INTRODUCTION

India being an agricultural country, a vast majority of the population (75.30 per cent) lives in rural areas. The rural conditions, therefore, must be improved in all aspects to change the national structure as a whole. According to Sangita (1991) a large part of our population (32.25) percent) falls between 15 to 35 years age group. The young people belongs to this age group are called as youths. We may define youth as "youth is a transactional period in the personality development and its bridges the years between childhood and adulthood".

The Nehru Yuva Kendras are primarily designed to organise out of school education and provide a forum at the district level. The kendras were started by Ministry of Education and Culture (now its name has been changed as Ministry of Human Resources Development) on 14th November, 1972. The basic aim of kendras is all round development of non-student youths particularly those who live in rural areas, with a giving them the opportunities to participate in the development process with the establishment of youth clubs.

Keeping this in view a study was undertaken with the following objectives :

1. To know the relative preference of activities of NYK by rural youths.

METHODOLOGY

The study was conducted in three panchayat samities in Churu district of Rajasthan. The nine villages (three from each panchayat samiti) were selected randomly. From each of the selected villages 10 youths of NYK were selected randomly. Thus in all ninety respondents were considered in the sample.

A structured schedules was used to collect informations through by personal interview method. The schedule deals with the relative preference of the activities of NYK

1 Pitambar Sharma—Ph.D. student of Department of Extension Education.

2 Dr. P. N- Kalla—Associate Professor, Department of Extension Education, Rajasthan Agricultural University, Bikaner Campus-Jodhpur.

as perceived by rural youths. A list of all the activities prepared and then the responses of the respondents were recorded on a three point continuum scale 'Most prefer', 'Moderately prefer' and 'Least prefer' (weightage 3, 2, 1 were given for most prefer, moderately prefer and least prefer, respectively. The data were processed, tabulated and analysed. The major activities with sub-activities of NYK were identified follows in Table-1.

Table 1 : Major activities with sub-activities of Nehru Yuva Kendra.

S. No.	Name of major activities	Number of sub-activities
1.	Youth leadership training activities	15
2.	Non-formal and adult education activities	3
3.	Individual youth club project activities	13
4.	Vocational training activities	17
5.	Community welfare and sports activities	9
6.	Group project activities of youth clubs	7
7.	Social service activities	18

Findings and discussion : All the respondents were asked about each sub-activity of NYK and their responses were recorded on a three point continuum scale 'most prefer', 'moderately prefer' and 'least prefer'. The responses were collected, tabulated and presented in Table-2.

Table-2 : Relative preferences of various major activities with sub-activities of NYK by rural youths.

N=90					
S. No. Major activities of NYK	Average percentage of rural Youth			Weightage average	Rank
	Most preferred	Moderately preferred	Least preferred		
1. Youth leadership training activities	30.37	34.14	35.25	1.94	I
2. Non-formal education activities	34.44	31.85	33.70	1.89	II
3. Community welfare and sports activities	30.02	29.49	40.46	1.84	III
4. Individual projects of youth clubs	23.94	27.77	48.26	1.82	IV
5. Social services activities	23.81	32.95	43.14	1.80	V
6. Group projects of youth clubs	18.09	31.26	50.63	1.67	VI
7. Vocational training activities	7.77	11.24	80.97	1.26	VII

A perusal of data presented in Table-2 revealed that youth leadership training activities were preferred as 'most preferred by 30.37 per cent of the respondents, whereas, 34.14 per cent of the respondents preferred as moderately and 35.25 per cent of the respondents preferred as least preferred to these activities. These activities given I rank on the basis of weighted average score by the respondents. The individual analysis among youth leadership training activities, national integration, adult education and self-employment and income generation activities were preferred as most preferred by the respondents on the basis of weighted average, while, science and technology, scientific attitude and scientific agriculture activities were considered as least preferred.

Non-format education activities were given II rank by the respondents with the weighted average score of 1.89. These activities were considered as most preferred by 34.44 per cent of the respondents, while, 31.85 per cent of the respondents considered them as moderately preferred and remaining 33.70 per cent youths considered. These activities as the least preferred, it means these activities as moderate to most preferred by the majority of respondents.

Further table shows that community welfare and sports activities preferred as 'most preferred by 30.02 per cent of the respondents, while, 29.49 per cent respondents preferred them as moderately and least preferred. Individual analysis among community welfare and sports activities, cultural and recreational, sports, development of social forestry and library and reading room facilities activities were preferred as 'most preferred by the respondents on the basis of weighted average, while cycling, hiking, mountaineering activities were least preferred by the respondents.

The table also indicates that the remaining activities were preferred as least preferred to moderately preferred by the respondents. The weighted average score obtained as the remaining activities range between 1.26 to 1.82 (rank IV to VII).

CONCLUSIONS

Based on the above findings of the study, the following conclusions were drawn :

1. Majority of the respondents were preferred as moderately to most preferred activities like as youth leadership training activities, non-formal education activities, community welfare and sports activities. The individual activities analysis indicates that calf rearing, dress making, field crop growing, sanitation, adult education, tailoring, national integration, nationality, self-employment and income generation, cleaning of wells, cultural and recreational library and reading room facilities, sports activities considered as moderately to most preferred activities of NYK by the respondents.

2. The rural youths were considered as least preferred activities like as poultry farming, cycle repairing, radio engineering, spray painting, watch repairing, chair making, ink making, cycling, hiking, mountaineering activities of NYK.

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Self Concept and Drug Addiction

S. H. Mahmud, Manzurul Huq and Shamim F. Karim
Psychology Department, University of Dhaka
Dhaka. Bangladesh

Our hunch that substance abusers might have low self concept was found to be true among the present sample. Personally perceived self appears to be most pronounced of all other types or self concepts. A large percentage of substance abusers do take drug to get relief from stress. Curiosity as a causative factor has been found to be the least important in this Bangladeshi sample.

To deal the problem effectively alternative to drug is required to be introduced in the society. Prevention program should also address psychological and social factors which influence human behaviour. Self esteem, self reliance and alienation are among the psychological factors prevention program should begin to address. Social skill programs should begin to include and combine affective education technique to resist influences to use drug and drug use information.

INTRODUCTION

The widespread abuse of drug has become human tragedy all over the world. Bangladesh has began to take cognizance of and confront a growing problem of hard drug abuse only within the past few years. This increase in incidence of drug addiction has made it alarming to necessitate to look into the reasons of drug addiction behaviour.

As with most social behaviour, the etiology of drug abuse is complex, varying through time, by geographic region and by demographic characteristics. The underlying causes of drug abuse are as diverse as the population that they affect (Kozel and Adams, 1986) Peer pressure, curiosity, depression, hedonism, attempt to increase or improve performance, rebelliousness alienation and a wide variety of other reasons have been cited as responsible for abuse of substances ranging from solvent to stimulants to opiates (Jones and Battifles, 1987).

Few researchers attribute to sociological factors, such as economic changes, political instability and an atmosphere of liberation. These conditions then cause a sense of insecurity and skepticism in youth which in turn lead them to use substance (Adler and Kandel 1982) attribute drug use to an individual's feelings of alienation. However, Wright and Moare (1982) study did not support alienation as a significant cause of drug abuse.

A number of studies on youthful drinking show a reinforcing role of peer group on drinking behaviour of its members and prospective members (Wandel 1984). There are findings which suggest that a poor parent child relationship characterized by parental rejections, lack of warmth and affection for the child, parent child conflict, lack of parental interest and nurturance may significantly contribute to substance abuse problems even at a later stage of life to some extent (Pandina and Schuele 1984, Barnes 1984, Belte and Barnes 1987).

A positive relationship between parent and child based on love and trust is an important determinant of the adolescent general satisfaction with life. Thus a poor child relationship produces a general dissatisfaction with life which in turn may lead to substance abuse. These unhappy adolescents use alcohol in an attempt to find a 'synthetic' joy or as an anesthesia to numb their painful feelings.

Gold and Mann (1982) did a study that showed defence against a derogated self image was a motivation for delinquent behaviour. Drug abuse was one of 16 types of delinquent behaviour listed in the study. They concluded that self image is easily distorted, thereby permitting a person to re-evaluate himself, such that a self image that is unconsciously belittled, passes into consciousness as adequate if not potent or loudable. Poe *et. al.* (1972) found non-abusers had a higher positive self concepts, reflected selves and ideal selves. Drug abusers had higher negative self concepts and reflected selves. If low self concept can be positively identified as a causative factor of drug abuse among addicts implications would be extremely important to help build up positive self concept in an individual at home, school and work place by parents, educators and society in general. Through this education and prevention process we can eliminate atleast one major cause of drug abuse in the society.

Thus it is necessary to see the magnitude of low self concept as a causative factor among the drug abusers. The present study is intended to examine the role of self concept along with few other factors which may lead a person to turn into addicted personality.

METHOD

Subjects : The questionnaire was administered to 100 drug addicts while attending a treatment program in a clinic in Dhaka, Bangladesh. To collect data from such a number of respondents the survey had to extend over twelve weeks since the number of addicts who are coming for treatment are very limited and secondly all of them are not

willing to respond. The respondents are under treatment program for varied length of time ranging from 1 to 12 weeks. Most of the subjects are male (excepting ten) ranging from 19 to 38 years, the average age being 29 years.

Measuring Instrument : Relevant data were collected by using a standardized schedule consisting of socio demographic information and causative factors related to drug addiction behaviour. Thirty two items were included among the causative factors representing five categories-self concept, social, pleasure seeking, intoxication and curiosity. In each category there were four items excepting self concept. In self concept category there are sixteen items representing four categories of self concept (four item in each type).

These are socially perceived self, personally perceived self, home self and school self. These items were determined by the opinions of experts in the field of substance abuse i.e. psychologist, psychiatrist and social workers. Items having interjudge agreement above 90% were taken into consideration. High validity of the instrument should be correlated with high reliability. Reliability of the instrument estimated by split half method on a sample of 20 individuals is 0.80.

Procedure : The respondents were interviewed in the clinics on the basis of the measuring instrument by a trained Research Assistant having background in psychology. He was briefly reviewed on the purpose of the study and mechanism to be followed to record the information of the drug addicts. He was also asked to take care while handling the addicts as in some cases they are psychologically disturbed. The clients were told that their names and addresses will not be recorded in order that their identity remain unknown and the information will be used only for research purpose to help out the people in future.

RESULTS

The causative factors were analyzed as to the percentage of times a response in each category were chosen. Percentages were worked out on two bases-on the basis of responses in four items and on the basis of atleast one item in each category (Table-1). The results clearly demonstrate that a low self concept is a common denominator as a causative factor of addiction behaviour in most of the cases (74%). The second leading causative factor benign drug addiction was to secure relief from stress situation (52%). It was then followed by factors like social (56%), intoxication (50%) and curiosity (28%). Of the four self concept personally perceived self found to be the most pronounced (76%) then followed by socially perceived self (62%), home self (46%) and school self (44%).

However, the trend of the result was slightly different when the percentages were worked out on how many subjects chose at least one response out of four from the said categories. Although factors like self concept ranked highest (88%) it was then followed by stress (82%), intoxication (66%), social (62%) and out of curiosity (34%) as causative factors.

Dividing self concept into four sub categories showed the following results : Personally perceived self-90%, socially perceived self-75%, home self-52% and school self-44%. The socio-demographic information reveal that addiction behaviour is found to exist in both the educated and the non-educated. The non educated group generally take local varieties of drug such as marijuana, hashish which are inexpensive whereas the educated respondents who are reasonably well off prefer to take western drugs such as heroin, cocaine, LSD etc. The marital status of the addicts are as follows : unmarried-60%, married-30%, and divorced-10%. Such descriptive statistical distribution pattern among the respondents indicate that when people are involved with some kind of responsibilities they do not usually turn into addiction personalities and spend money on addiction. It is of interest to note that the number of female addicts are far less than their male counterparts (10 out of 100 drug addicts). This is because of the fact that women folk here in Bangladesh are dominated by the male and have restricted movement in the society. As a result they are not exposed enough to drugs to develop addiction.

There was a limitation of such kind of study since there was no provision for the subjects to indicate any other causative factors outside those mentioned in the measuring instrument.

Studies along this line should keep a scope to indicate other causative factor if any which are not included in the measuring instrument.

DISCUSSION

A number of theories have been put forward to explain the addiction behaviour due to its complexity in nature. Empirical data in the literature also suggested that the causative factors related to addiction behaviour are diverse. From this study it appears that a low self concept was found to be a common denominator in most of the cases as a causative factor for turning into addicted personality. Samules and Samules' (1984) data also hinted that a low self concept inclines a person to abuse drug. Low self control among heavy drinkers was also observed by Lawson (1983).

Howkins *et.al.*, (1985) have found significant associations between substance use and level of self esteem. The study further revealed that the second leading cause of abusing drug is to overcome stress situation. To get high (intoxication) and to seek

pleasure also stimulates a person to drug abuse. The least important causative factor in the Bangladeshi sample appear to be curiosity. However, Samuel (1983) in a study on American adolescents found curiosity to be the most leading cause in drug abuse. It is perhaps due to the fact that American adolescents are exposed to drug at an early age and thereby start taking it early. At that age they do not really have a feel of addiction. Since addiction behaviour starts at much later stage, in the present Bangladeshi sample it appears that they take drug as necessity i.e. as an alternative for getting relief from stress situation they encounter in a chaotic society prevalent in Bangladesh.

Efforts should be made to help individuals not to get involved in addiction. To do so we suggest emphasis on preventive programs focussing the affective domain which will build up self esteem and enhance self concept.

It is necessary, therefore, to introduce a drug education program whose primary goal would be to assist an individual in developing a positive self concept. An individuals sense of inherent self worth and uniqueness will lead him to choose positive and viable alternatives in life rather than self destructive ones.

Dohner (1973) suggests for more attention to non chemical alternatives, search for self knowledge, or meaningful human relations, developing enduring values and having spiritual experience. One alternative is "Personal Awareness Development" where by a person must learn to aware of his own feelings, attitudes and perceptions and learn to evaluate the effect of his behaviour on others thereby improving his interpersonal awareness also. All these are also supposed to work as self corrective system for growth and enhancement of self concept.

Opportunities should also be created to make the youth participate in some sort of nation building programmes so that they feel worthy and proud members of the nation. This will generate an awareness of active belongingness to the nation and would prevent inclinations to drug abuse since it is generally considered to be an anti national act.

Rogers (1951) view also points to the significant role played by a jeopardised self concept in developing tension and other psychological disorders. According to him when the self image of a person is endangered by some aspect of his experience considered highly consistent to his self concept, the person may deny that experience at the expense of developing anxieties and other disturbing symptoms. It is not unlikely that such a person may eventually have recourse to drug addiction as an alleviatory measure. Rogers also asserts that an unconditional positive regard towards a person is a funda-

mentally necessary precondition to foster the development of a sound and healthy self concept as well as to salvage and redeem an already damaged one. Special community education programme should therefore be arranged for developing an atmosphere of positive attitude and regards towards the youth in general and the addicts in particular. Development of religious values in the society seems particularly pertinent for this purpose. Because religion upholds the dignity of man above all. It teaches to hate the sins but not the sinners. Religious values are also expected to eliminate the feeling of estrangement and meaninglessness by creating a deep sense of affiliation to God and His creation and providing a definite direction to one's life. Higher spiritual religious experience would also remove the anxieties due to frustrations and injury to self image by sublimating the needs and desires to a higher level to transcendental meaning.

To sum up it has been observed that drug abuse prevention programs initially focus almost exclusively on providing information on drugs and their effects. The assumption that persons would not use drugs if they knew the facts about their dangerous information alone quickly proved to be inadequate. Subsequent program began to address psychological and social factors which influence behaviour. Self esteem, self reliance, and alienation are among the psychological factors prevention program should begin to address. For example, education programs should focus on helping people develop decision making abilities and interpersonal skills in communication and self assertion. Program designed to provide with alternatives to drug use should begin to involve people in such alternatives as implementing community improvement projects or developing vocational skills to help them again a sense of worth and competence. These programs need not focus on drug abuse per se, based on the belief that, if the underlying dynamics could be modified, drug use could be prevented.

Other prevention programs should begin to focus on social factors related to drug use. For example sound programs may focus on peer, family and media influences to help people identify pressures to use drugs and to help them develop specific skills to resist these pressures. Community leaders should join together and form action groups to counter peer and environmental influences conducive to drug use. Prevention programs may begin to expand the scope of their programs in recognition of the multiple factors influencing drug use. Social skill programs should begin to include and combine affective education, techniques to resist influences to use drugs and drug use information.

The table shows that through the absolute figure of percentages vary for the same factor under the two criteria but the order of the factors according to their magnitude remain unchanged. This stabilizes their relative position furthermore.

Table-1 : Responses in all causative factors included in the measuring instrument. Percentages were worked out on the basis of (a) all responses in each category (b) one response in each category.

Causative factor	(a) Percentages on the basis of all responses in each category	(b) Percentages on the basis of at least one response in each category
Self concept	74	88
Stress	62	82
Intoxication	50	66
Social	56	62
Curiosity	28	34

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"Knowledge of Farmers About Different Chemical Fertilizers Available in the Market"

J. P. Gupta¹ and P. N. Kalla²

सारांश

राजस्थान के अलवर जिले की किशनगढ़ बास पंचायत समिति के 100 कृषकों का चयन किया गया। 100 कृषकों से उनके रासायनिक उर्वरकों की जानकारी के बारे में प्रश्न पूछे गये। सभी कृषकों का अध्ययन करने के बाद पाया गया कि अधिकतर कृषकों का रासायनिक उर्वरकों के बारे में औसत ज्ञान है। बहुत कम कृषक ऐसे हैं जिनका रासायनिक उर्वरकों के प्रति ज्ञान बहुत ज्यादा है।

INTRODUCTION

Knowledge is one of the important components of behaviour of an individual. It has been defined as the behaviour and test situations which emphasized the remembering either by recognition or recall of ideas, material or phenomena (Bloom, *et.al.*, 1956). Though the farmers are engaged with the farming practices for quite a long period even then they acquired a little part of the existing knowledge about the production technology. Fertilizer is as important input for increasing crop production. So knowledge about different chemical fertilizers available in the market should be needed to the farmers. So that farmer can use suitable fertilizer at right time in appropriate quantity to achieve good yield.

In view of this the present study was under taken with following specific objective—

- (i) To find out the knowledge level of farmers about different chemical fertilizers available in the market.

¹ J. P. Gupta, Ph. D. Scholar (Extension), SKN College of Agriculture, Jobner.

² Dr. P. N. Kalla, Associate Professor, Department of Extension Education, SKN College of Agriculture, Jobner.

METHODOLOGY

The present study was conducted in Kishangarh—Bas panchayat samiti of the Alwar district of Rajasthan. Ten villages were selected with the help of simple random technique from this panchayat samiti. Out of these villages ten farmers were selected from each village by simple random technique. So it makes total no. of respondents 100.

The knowledge level of farmers regarding fertilizer was measured with the help of a test already developed by Sethy (1978). The question in a test were then further splited into such question comprising a total of 38 in all. The questions were dictiotomous type and thus, the interview was asked to reply in either of the categories in Right/Wrong, Yes/No. One mark was given for every right answer and zero for wrong answer.

Findings :

Table-1 : Level of Farmers Knowledge about Chemical-Fertilizer.

Knowledge Score	Number of farmers	Percentage	Rank
Less than 12.49 (0-12)	16	16	III
12.49 to 18.49 (13-18)	65	65	I
More than 18.49 (19-38)	19	19	II

The data in Table-1 revealed that the farmers differed very much in their knowledge about chemical fertilizers. Majority of the farmers (*i.e.* 65 per cent) had knowledge score ranging from 13 to 18 followed by 19 per cent who scored between 19 and 16 per cent of the respondents fell under the range of 0 to 12.

CONCLUSION

It was observed that 65 yer cent of the farmers were in medium knowledge levels, followed by 19 per cent of the farmers in high knowledge level and 16 per cent of the farmers in low knowledge levels. If leads to the conclusion that the farmers in general had moderate knowledge about the fertilizers.

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Hostility in Cancer Patients

Dr. Verma K. B.*, and Dr. Asthana M.**

The present study aimed to measure hostility in cancer patients. The sample consisted of 50 cancer patients from Cancer Research Institute, Varanasi and 50 normal subjects served as control group. Both groups were matched on age (35-62 years), Sex and education. Hostility scale by Roma Pal and Tasneem Naqvi (1982) was administered to the sample individually. The results revealed that cancer patients scored significantly high on hostility scale in comparison to control group.

INTRODUCTION

The concept of hostility has been considered as a personality trait and a personality style. Clinical psychologists considered it as the 'Hostility-Construct'—(Dellard, Doob, Miller, Mowerer and Sears, 1939). Dallard *et.al.*, (1939) proposed the 'frustration-aggression-hypothesis' which stimulated much interest in the study of hostility construct. They emphasised aggression as a consequence of frustration. Although, hostility differs from aggression because aggression is concerned with any overt action which is intended to hurt physically or verbally ; whereas hostility is a wish for a specific class of goal to cause pain, distress or anxiety to another person, or a surrogate of that person.

Hostility has been considered as an internal or emotional reaction of anger, enmity of resentment directed toward a object, person or occurrence (Rohner, 1980). Hostile person may verbally nag, scold and ridicule toward concerned person or object. His behaviour includes the characteristics of crusing, depreciating tone of voice, saying

* Lecturer, Deptt. of Psychology, Sri Agrasen Kanya P. G. College, Bulanala, Varanasi.

** Head, Deptt. of Psychology, Sri Agrasen Kanya P. G. College, Bulanala, Varanasi, U. P., India (221001).

thoughtless, unkind and cruel things, and physical hurts. The person to whom hostility is directed, is the one who is believed to be the thwarting agent, the one who threatens the valued standards.

Buss-Durkees (1957) have considered the eight dimensions of hostility—(1) Assault, (2) Indirect hostility, (3) Irritability (4) Negativitism, (5) Resentment (6) Suspicion (7) Verbal hostility and (8) guilt.

Cancer is one of the most dreaded diseases for many years. A diseased person adopts a special personality pattern and characteristics. What are the personality pattern and personal characteristics of such people, who suffer from cancer, has been one of the important issues for researchers. Researchers who have investigated the emotionality and other personality characteristics of cancer patients are Kissen (1965), Brawn (1969), Weinstock (1977), Beek (1979), Acterberg and others (1979), Srivastava (1988) and Srivastava (1991). In attempt to study emotionality of cancer patients, we aimed to measure hostility of cancer patients.

METHODOLOGY

50 Cancer patients with diagnosis of lung, prostate and multiple carcinomas from Cancer Research Institute, Varanasi, and 50 healthy normals (served as control group) were taken in the present study. The age-range of the sample was from 35 to 62 years with a mean age of 46.8 years. Both groups were matched on sex, age, education and SES.

Hostility scale by Pal and Naqvi (1982) was administered individually to the total sample.

RESULTS AND DISCUSSION

Table 1. Significance of difference between mean hostility scores of cancer patients and normals.

Groups	N	M	SD	<i>t</i>	<i>p</i>
Cancer Patients	50	79.5	26.1	3.11	.01
Normals	50	65.4	18.5		

df = 98

From the above table it is clear that cancer patients score significantly high on hostility than their normal counterparts.

The construct of hostility which the system purports to measure refers to an individual's general and presumably stable negative attitudes and feelings towards the world around him. These attitudes and feelings are often repressed in our culture and find expression in distorted attitudes.

The results on hostility obtained by Hostility scale (Pal and Naqvi, 1982) are consistent with the findings of researches which have sought to identify the psychological characteristics of cancer patients and have frequently noted in them the inability to express emotions, specially that of anger (Bacon *et.al*, 1952, Perrin and Pierce, 1959; Greer and Morris, 1979; Dottore, 1980; Wirshing *et.al*, 1982; Grossarth and Eysenck, 1991). The finding of the present study are also supported by the study of Srivastava (1988) in which she found the mean hostility scores for three cancer groups (prediagnosed, diagnosed, and treated) were significantly higher than the control group.

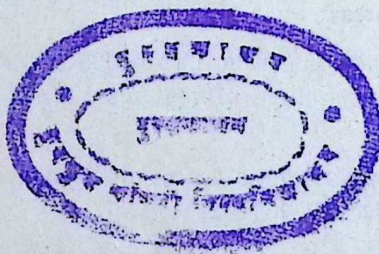
The results of the present study show that the mean hostility score of cancer group is significantly higher than the control group. A possible explanation for the cancer patients, higher hostility score may be that the expression of the emotion of anger is usually not allowed in the civilized world, the undischarged anger may linger on in the form of hostility and may produce physical disorders and ailments like ulcers, cancer and other such disease. The denial and repression of emotions leads to self-alienation, a fusion of regenerative and creative drives with hostile, guilty and depressive emotions; and that tumor growth can be a psychological effort to regenerate in the face of frustration, guilt and despair (Bahanson and Bahanson, 1966).

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